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ABSTRACT

The papers presented in this collection examine the implications of a growing demand for qualified career education personnel including the need for staff training capabilities, particularly the possible requirements for supportive research and development (R & D) personnel. The papers are intended to provide information and perspective to those faced with decisions about R & D investments and to those affected by such decisions. Specifically, the questions addressed are whether or not R & D is needed to improve staff training for career education and, if so, what particular R & D strategies should be applied. The principal paper by Norman J. Boyan provides a review and interpretation of current activity and recommends a course of action regarding the investment of R & D resources. This is followed by seven reactions to the Boyan paper, viewed from various perspectives including the classroom, district administration, educational publishing, state departments, and higher education. Among these authors are both strong supporters and severe critics of career education as a major reform. The volume concludes with Boyan's rejoinder to the seven critiques. (TA)

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R & D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION

by

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With Responses From: Angeline P. Caruso
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by

Far West Laboratory for Educational Research and Development
San Francisco, California
1977

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PREFACE

During the past six years career education has received remarkably broad acceptance and support. Its widespread and rapid diffusion implies a growing demand for qualified personnel, which in turn implies a need for appropriate and effective staff training capabilities. The papers presented here examine these implications from the standpoint of possible requirements for supportive research and development. Specifically, they address the questions of whether or not R&D is needed to improve staff training for career education and, if so, what particular R&D strategies should be applied. A statement of work for the project is shown in Appendix A.

The principal paper, "R&D Strategies for Staff Development for Career Education," by Norman J. Boyan, provides a review and interpretation of current activity and recommends a course of action regarding the investment of R&D resources. This is followed by seven reactions to the Boyan paper, viewed from various perspectives including the classroom, district administration, educational publishing, state departments, and higher education. Included among the eight authors are both strong supporters and severe critics of career education as a major reform. The volume concludes with Dr. Boyan's rejoinder to the seven critiques.

The primary purpose of this volume is to provide information and perspective to those faced with decisions about R&D investments and to those affected by such decisions. It is also hoped that these papers will stimulate and inform further investigation and debate of the important issues addressed in this volume. Your comments will be appreciated and should be addressed to:

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PART I

R & D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION

A Report to the National Institution of Education

Submitted by:

Dr. Norman J. Boyan
University of California, Santa Barbara
August, 1976

R & D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION

Norman J. Boyan
University of California, Santa Barbara
August, 1976

INTRODUCTION

The commission which I have accepted is to report on R & D needs and priorities for in-service staff development for Career Education.[1] The sponsor of the report has requested that existing data on in-service training for Career Education be assembled, assessed, and analyzed with a view to problem identification and definition and with a view to suggesting alternative solutions for the problems. Of central concern to the sponsor is whether or not systematic R & D can contribute materially to problem solution, and if so, what alternative strategies deserve serious consideration.

I urge the reader to pay particular attention to the sponsor's commission and intention. The focus on what kind of, if any, significant contribution systematic R & D work can make to improving staff development in behalf of Career Education differs fundamentally from examination of the merits and demerits of Career Education as an educational reform movement. My statement will disappoint the reader who seeks analysis of the worth of Career Education *per se*. The sponsor's commission has preempted that particular task. When a sponsor asks whether or how R & D investments in staff development can enhance Career Education, the question obviously assumes that Career Education does, fundamentally, encompass worthy activities in pursuit of worthy purposes. The test of that assumption and of the myriad claims made in behalf of Career Education rests with other analysts, in other places, at other times.

I wish, however, to make clear my own personal position on Career Education. I am not a believer in Career Education as a reform movement of great merit or lasting value. I seriously doubt that Career Education will be the panacea which so many of its advocates proclaim and supporters believe. I believe, however, that it is possible to segregate my belief and my doubts from systematic analysis of R & D strategies for career development for Career Education. The reader will necessarily make his own judgments about whether my personal views of the merits of Career Education have biased the discharge of my commission.

I propose to organize my search for an answer to the question of how, if at all, R & D can benefit the staff development needs of Career Education around examination of four constituent questions. First, is there demonstrable need for staff development activities for Career Education?[2] Second, what characteristics of staff development particularly qualify for R & D consideration? Third, what characteristics of R & D effort are particularly salient for or germane to the development of staff development programs? Finally, what central characteristics of Career Education as a reform movement should influence decisions about R & D for staff development?

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[1] Except where quoting others, I will capitalize "Career Education" to signify its meaning as a particular proposal for educational reform.

Each of the questions posed above will receive systematic attention, in serial order, followed by a synthesis of those characteristics of staff development activities, of rigorous and disciplined R & D work, and of Career Education as an educational reform movement which appear most cogent for formulation of a strategy for R & D investments in staff development activities for Career Education.

One terminological note is in order at this point. Hereafter, I will use the term "staff training" instead of "staff development" (except where quoting others) to permit the term "development" to be used with one, and only one referent; namely, the D part of R & D. I recognize that staff training generally connotes a more restricted meaning than staff development, but I believe it important to avoid the confusion which two different referents for the same term would easily introduce.

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[2] The reader should anticipate that the answer to this question will be some form of "yes." Otherwise, s/he would have in hand a much shorter document.

I. EVIDENCE OF NEED FOR STAFF TRAINING

The most recent and useful data on staff training needs appear in Career Education in the Public Schools, 1974-75; A National Survey published by the American Institutes of Research in May 1976. The report includes (1) an analysis of 10 major surveys and studies of Career Education conducted by others; (2) a survey conducted by AIR of career education activities occurring in 1974-75 in a representative sample of 900 U.S. public school districts; (3) a special study of 16 school districts reputed to offer exemplary career education programs; (4) a survey conducted for AIR by the American Association of Colleges for Teacher Education of all its member institutions, also for 1974-75; (5) a survey conducted for AIR by the Council of Chief State School Officers of all State Education Departments; and (6) an analysis of a large array of both commercial and non-commercial Career Education materials.

The AIR team set the stage for its position on staff training needs by stipulating that the "only safe conclusion" which could be drawn from the analysis of studies and reports completed earlier by others were that:

1. There is wide variation in practice in terms of who receives training, how much training is needed, and the methods being used; and
2. There is a fair amount of recognition of the need to increase both inservice and preservice activities at State and local levels and of the need to involve institutions of higher education. (McLaughlin, p. 28)[3]

The AIR Survey itself ends with a more definitive and stronger statement.

> As a final summary, two needs appear to be especially prevalent in the schools on the basis of these survey results. First, there is the need for support for staff development programs in career education. Only 20% of the nation's teachers were involved in any career education staff development activities in 1974-75; and these activities when present were highly indicative of extensive career education activity. Second, there is a need, not nearly so frequently expressed, but apparent, for evaluation of career education programs...(p. 179)

What evidence supports so unequivocal a summary view?

---

[3] All page citations in this section refer to the AIR Survey unless noted otherwise.

The Public School Survey

The instrument used by AIR to survey the status of Career Education in a representative sample of U.S. school districts included four items which centered specifically on staff training activities and three items which included reference to staff training or related activities. Each respondent was asked to identify (1) the approximate percentage of each of 13 categories of school personnel which had participated in staff training of any variety during 1974-75, (2) how participants were compensated for their efforts (released time, additional money, college credit, other), (3) the principal sources of funding for staff training (local, State, Federal, business/labor/industry, participants, other), and (4) for which of five major "topics" on which staff training focused was each of 15 "methods" of employed and at what times did the training take place. On the basis of self-reports from 860 respondents who provided usable data, buttressed by detailed analysis of conditions and activities in 16 school districts selected for their reputed involvement in the Career Education movement, the AIR team portrays the status of staff training in the public schools in 1974-75, draws its inferences, and presents its conclusions as follows.

Proportion of school districts involved. A majority of the nation's school districts, specifically 57%, were engaged during 1974-75 in at least some staff development activities in Career Education. (pp. iii, 55, 73,110)

Proportion of pupils affected. "Only 31% of the nation's 45 million students were in school districts in which there were no such activities for the staff." (pp. 55)

Proportion of staff involved. Approximately 20% of the nation's teachers were involved in career education staff training during 1974-75. Approximately 40% of U.S. administrators participated. The percentage of counselors involved was approximately the same as teachers at the elementary school level, but noticeably higher than both teachers and administrators at the middle school and high school levels. There was greater activity at the higher grade levels because of the number and proportion of guidance personnel. The participation rate in school districts where there was actually some involvement of staff in training activities exceeded the nationwide average in participation; more specifically, about one-third of the teachers were involved and about two-thirds of guidance staff and administrators. The lower participation rate for teachers is assumed to be a function of the much larger size of the group. (pp. iii, 55-56, 74, 110)

Focus of training activities. The survey instrument offered respondents an opportunity to indicate whether or not training activities in their districts addressed themselves to one or more of five "topics": concepts, teaching techniques, curriculum materials, evaluation techniques, community resources. "Overall, the frequencies of the five topic areas were about equal, and very few districts covered some of the topics without covering all." (p. 73)

Modes and methods used for training. The survey instrument also offered respondents an opportunity to check the methods used to provide exposure to or training in each of the five topic areas. In the report, the modalities appear under three broad headings:

(a) internal staff activities, including (1) presentations by local school staff experts; (2) group sharing sessions among school staff; (3) locally prepared staff development materials; (b) external educational resources, including (4) attendance at professional meetings; (5) published staff development materials; (6) presentations by State Career Education experts; (7) presentations by experts from institutions of higher learning; (8) visits to other Career Education sites; (9) summer sessions at college; (10) workshops by professional organizations; (c) external non-school resources, including (11) visits to business/labor/industry or other community sites; (12) presentations by experts from business/labor/industry; (13) work experience in fields outside education; (14) workshops by private firms.

> The most frequent method for conveying concepts was attendance at professional meetings; for conveying teaching methods, presentations by local staff experts; for conveying curriculum materials information, published staff development materials; for conveying evaluation techniques, locally prepared staff development materials; and for development of community resources, visits to sites in the work world of the community and locally prepared staff development materials. (p. 73)

Emphasis of staff training vis a vis emphasis on other means of implementing career education. "The involvement of staff in development activities was the most frequent step being taken to implement career education during 1975." (p. 73) "The most prevalent aspect of career education in practice in 1974-75 was staff development." (p. 111)

The perceived importance of staff training. "Correlations between staff development activities and direct learner activities were significantly positive..." (p. 73) The percentage of participation across most of the 13 categories of staff personnel for which data were available on participation rates in staff training was highly related to overall Career Education activity level. (p. 75)

In addition to explicit presentation of the regularity of association of staff training with overall levels of Career Education activity in public school districts, the AIR team made a number of statements and observations which suggest to the initiated that some form of exposure to Career Education concepts and/or specific training would have previously taken place. For example, in the discussion of conditions reported by school districts as contributing to the success of Career Education project activity, the factor of "endorsement of staff" was rated by a larger proportion of respondents as a matter of great importance than any of seven other factors except "support of superintendent." (p. 97) In a parallel discussion of problems identified as contributing to overall difficulty in implementing career education, "lack of funds to train staff" is reported as the most significant factor, ranking slightly ahead of "lack of funds for making curriculum changes" and "lack of funds to purchase materials." The factor "lack of trained staff" ranks sixth in a list of 13, but combined with the first-ranked factor of "lack of funds to train staff," the two factors come across as significant considerations for the success of Career Education activities and programs. (p. 98)

The State Education Agency Survey

The survey of State Education Agencies focused on three clusters of questions: (1) how much activity in Career Education was occurring in 1975, what did the activities consist of, and how did the levels of activity compare with a prior survey reported by the Council of Chief State School Officers? (2) were Career Education activities in local school districts related to SEA actions? (3) to what extent did the priorities of each SEA for Career Education activity match those of local school districts and of other States?

From the questionnaire returns from all 50 States, the AIR staff generated the findings about staff development listed below.

1. There is a high correlation between staff development activities involving presentations by State Career Education experts and overall level of Career Education activities in local school districts. (p. 121)
2. Presentations by the State experts were considered by local respondents about as effective as the half dozen other most effective methods for inservice staff development. (p. 121)
3. Among eight types of assistance common to questions about priorities presented to both local and State agencies, "The highest priority was for support of inservice staff development in both cases." (p. 123)
4. State education agencies themselves gave the highest priority scores for Federal Career Education support to the development of local school district staff and development of preservice teacher training programs. (p. 124)
5. "The States were also interested in having the Federal government support teacher training program innovation..." (p. 125)
6. Among the States themselves, on priorities for assisting local school districts, "The closest approach to unanimity was that 80% of the ratings of support for inservice development were 'high priority'..." (p. 125)

These findings square with a finding, based on the public school survey data, that "The assistance of the State and Federal governments was most frequently rated as needed to support staff development activities..." (p. 99)

The Higher Education Survey

In reaching its overall conclusion on the status of staff training for Career Education, the AIR team also drew on the results of a survey conducted by the American Association of Colleges for Teacher Education. The AACTE survey addressed itself to three broad questions: (1) how prevalent were Career Education programs for K-12 school personnel in the teacher training institutions? (2) what types of activities are characteristic of Career Education training programs? (3) what factors have contributed to the success of career educator programs, and what problems have been salient in these programs? The instrument used to collect the information was distributed in November 1975 to each of the 839 institutions holding membership in AACTE. Usable returns were received from 630, or 75%, of the survey population.

The AIR team summarized the status of staff training for Career Education in institutions of higher education as follows.

> According to the respondents, career education is being actively discussed in most schools of education in all sectors of higher education. However, the adoption of its several objectives is still being evaluated, and its pervasiveness is in a state of flux. Only 10% of the institutions have developed a formal policy, and the types of program offerings are changing from year to year. In half the institutions the faculty was "on its own" with respect to career education. (p. 145)
>
> With few exceptions, schools of education were allocating less than 7% of their teacher training budgets to career education, in both 1974-75 and 1975-76; the funds for career education instructional activities, while coming from many sources, were most frequently State program funds. Ten percent fewer schools of education, however, were expecting to receive State program funds in 1975-76 than in 1974-75. (p. 145)
>
> The modes and methods of activity in career education training tend primarily to be the traditional methods for training teachers; and career education has so far been treated as a subtopic in courses not primarily designed specifically for career education. These results suggest that career education has, so far, not had a great deal of impact on the programs of schools of education. (p. 146)

At another point, the AIR report concluded, justifiably on the basis of available data, that, "The need, so strongly stated by local school districts and State education agencies, for help in developing the school staffs into career education, was only beginning to be met by the colleges for teacher education." (p. iv)

Other Views on Higher Education Participation

Support for the observation that Career Education staff training has not loomed large in teacher preparation institutions comes from several other sources. For example, the AIR team cites a 1975 report of the Council of Chief State School Officers which agreed that teacher training institutions have not yet been properly active in preparing teachers for Career Education and which set out 16 specific recommendations relating to State Education Agency responsibilities to foster and stimulate pre-service and in-service training. (McLaughlin, p. 29)

The Proceedings of National Career Education Workshops (Briggs and Green) focus rather explicitly on what teacher preparation institutions have not done and what they should do in preparing educational personnel, at both pre-service and in-service levels, for participation in Career Education. Three of the recorded presentations -- those by Hoyt (pp. 11-19) Weishan (pp. 52-56) and Konopnicki (pp. 69-73) -- are laden respectively with approbation, threat, and hostility. Hoyt's remarks do, however, include expressions of hope that schools and colleges of education will seriously consider Career Education and contribute to its orderly growth rather than ignore or uncritically embrace the movement. This piece, presented in 1975, stands in distinctly noticeable contrast to the vitriolic diatribe against institutions of high education contained in an earlier volume of which Hoyt was co-author. (Hoyt et al., pp. 155-165)

In a statement entitled "A Model for In-Service Teacher Education in Career Education," G.E. Baker dismisses pre-service education for Career Education as a viable alternative at this time. "Teacher educators and their institutions must make the commitment to prepare teachers to teach within the career education concept. However, to date few institutions have done anything of significant scope even though individual faculty may be philosophically committed." (Baker, p. 67) The specific reasons which Baker cites (pp. 67-68) will be understood by readers who are familiar with college and university programs of pre-service teacher preparation. As for his in-service "model", Baker goes only so far as to indicate (1) how crucial it is to involve teachers in deciding upon design and content, (2) how appropriate it is to do the training through those professional organizations devoted to the subject matters commonly and currently taught at the secondary school level, and (3) how necessary is the coordination across subject fields at both the state and local levels. The major contribution he offers, however, is to provide rather persuasive argumentation about why Career Education can not really depend on pre-service teacher preparation programs for much help.

The measured approach to higher education's involvement in Career Education, beyond the AIR Survey, appears in Career Education Personnel Development: Ideas for University Planning by Lorella A. McKinney et al, published by the

Center for Vocational Education at The Ohio State University. This document is the most valuable source book available for the faculty of a school or college of education to examine and draw upon when considering potential involvement in Career Education preparation programs and activities. The general tone of helpfulness which pervades the McKinney document is both welcome and appealing when compared to the approbation, threat, or hostility found in other statements about higher education's involvement in Career Education.

Still McKinney and her associates make clear that they agree generally with the estimate of university participation found in other sources.

> Currently it is rare to find career education implemented in programs at the university level. University involvement that is in process is evidenced in the interest of a few individuals; in the administrative plan for institutions of higher education or continuing education of a few states...; and/or in an elective course.
>
> To date, preparation of personnel to teach career education concepts and to carry out supporting tasks for the implementation of career education has occurred mainly in the form of in-service education under the auspices of individual school districts. As career education has been implemented, there has been growing concern among local, state, and federal persons involved, to improve the quality of existing educational programs infused with career education and to extend opportunity for quality career education learning experiences to all students. Universities are viewed by those educators involved as having the resources needed to provide leadership in preparing personnel for planning and implementing quality career education instructional experiences. It is the recognition of this concern and need which has prompted the creation of this resource for university curriculum development of career education personnel preparation programs (K-12). (McKinney et al., p. 2)

There is obviously just as much commitment to Career Education in the Center for Vocational Education as there is in other sites where the movement has taken hold; but there appears to be more understanding of the problems faced by colleges and universities in adopting and implementing serious staff development activities than most Career Education spokespersons have exhibited.

Restatement of Need

Despite reporting that 20% of the nation's teachers have participated in some form of Career Education staff development activities, that 57% of the nation's school districts have offered some training activity, that 69% of the nation's 45 million public school pupils are located in those districts, the

AIR team concludes in the most unequivocal language that staff training needs are great. State Education Agencies record themselves as placing very high priority on staff training for Career Education and as agreeing that professional schools of education should be much more heavily involved. The AACTE survey confirms what a number of others had observed earlier; namely, that schools and colleges of education are generally not investing themselves and their resources heavily in preparing new teachers for and serving experienced teachers in behalf of Career Education.

On the one hand there is evidence of substantial Career Education activity, including much staff training, at the local school district level supported aggressively by protagonists at the State and Federal levels of government.[4] On the other hand, there is evidence that generally schools and colleges of education have passively ignored or generated little activity in support of the Career Education movement. Clearly, these opposing trends have created a sense of deep tension between protagonists of the movement and the professional schools. Do these trends, however, provide evidence of real need for additional staff training for Career Education?

The answer to this question is a function of the level of aspiration held for the health and prosperity of the Career Education movement. Some observers of the American educational scene, for example, would consider an involvement level of 20% of the nation's teachers and 57% of the nation's school districts in any innovation to be both unusually high and eminently satisfactory. Why, then, did the AIR team say that because "only" 20% of the nation's teachers have participated in any Career Education staff development activities, the need for supporting staff development programs is one of two "especially prevalent needs?" A reasonable inference is that the AIR team was interested not only in presenting a status report but also in indicating how to enhance the spread and implementation of Career Education.

The Career Education literature, including now the AIR Survey, makes clear that the aspiration level of protagonists and advocates is unusually high. Statements favorable to the movement definitely convey the impression that the desired target of involvement is 100% of pupil and staff personnel in 100% of the nation's school districts.

The connection between general aspiration for the health and prosperity of the Career Education movement and staff training in behalf of the movement is itself one of the movement's characteristics. Staff training is a crucial means to a desired end. Baker puts the connection as crisply as any Career Education supporter.

> The key to success in any curriculum innovation ultimately rests upon the delivery system employed for that curriculum.

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[4] The set created in the AIR instrument administered to the public schools, which asked them to respond in terms of what they were doing to promote learning about and preparing for work, undoubtedly contributed to reporting a volume of purported Career Education activity which is spuriously inflated.

> In the case of career education, what is done in each classroom determines the effectiveness of the total thrust and how valuable the program will ultimately be to the individual student. The teacher...becomes the key figure in the ultimate success of the career education concept. The importance of preparing teachers to perform in this role therefore assumes a dominant magnitude in developing processes for the implementation of the career education concept. (Baker, p. 62)

The AIR report provides empirical support for general propositions of the kind advanced by individuals of Baker's persuasion. Survey data show that where there is substantial involvement of personnel in staff development activities there also tends to be extensive learner-oriented Career Education activity in the schools. (McLaughlin, p.73) In addition, the special study of 16 "lighthouse" Career Education projects revealed that complete commitment on the part of participants to the concepts behind Career Education was crucial to project success. Appropriately enough in the current context, the brief case reports about the 16 projects are laced with reference after reference to the need for more and better staff training.

When seeking a definitive answer to the question of whether there is need for additional investments in staff training for Career Education, the searcher finds himself faced with a response which begins "It all depends..." If the searcher is a believer in Career Education, s/he will unquestionably find a positive answer to the question. Searchers of other persuasion will incline toward a less positive answer. In either instance, the question of what kind of, if any, contributions systematic R & D work can make to staff training for Career Education depends upon additional analyses, not ideological stance.

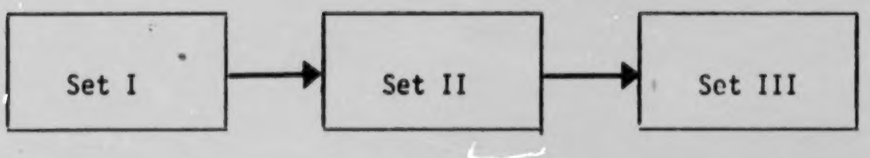
II. CHARACTERISTICS OF STAFF TRAINING PERTINENT FOR R & D EFFORT

The domain of staff training lends itself, under certain conditions, to successful attack through systematic R & D effort. Exemplars, among many, which support this view include the mini-courses developed at the Far West Laboratory for Educational Research and Development, the training programs for educational planners developed by both FWLRD and Research for Better Schools, the School Program for Evaluation and Communication Skills developed at the Center for Advanced Study in Educational Administration of the University of Oregon, the WILKITS developed at Weber State University, and the Instructional Supervision Training Program developed at the University of California at Santa Barbara. Each of these, and comparably successful, efforts demonstrate the importance of careful and rigorous specification of the behaviors which trainees will exhibit upon completion of their training.

A General Paradigm

Reference to a general paradigm for guiding the development of staff training programs reveals the lack of conceptual precision and clarity which currently characterizes statements of desired staff behaviors in Career Education. A simple pictorial representation of the paradigm appears below.

Figure 1. Pictorial Representation of a General Paradigm of Staff Development



Set I represents the training program. Set II represents the behaviors which the training program aims to yield or produce in the trainees. Set III represents the behaviors in still another set of individuals or groups which presumably will occur if the behaviors desired from the training program actually materialize.[5]

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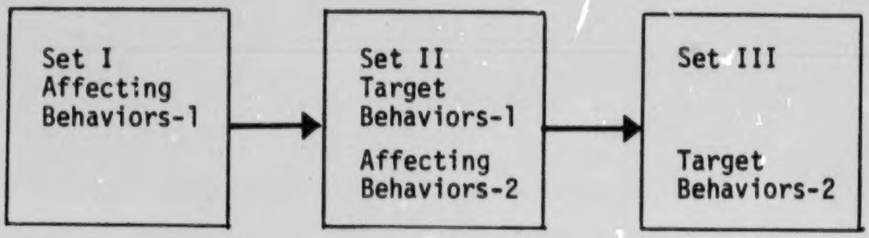
[5] For simplicity of representation, indication of the potential feedback effects from Set III to Set II and Set I, and from Set II to Set I is omitted.

In the case of a typical pre-service teacher preparation program, Set I would include the education and training offered to the novitiates; Set II would encompass the behaviors in beginning teachers which the preparation program would aim to deliver; Set III would refer to desired and/or anticipated pupil behaviors. For the more general case, the behavioral content of each set can be specified as follows.[6]



Set I (Affecting Behaviors-1) encompasses the behaviors of those individuals who initiate and implement a staff training program and its constituent activities.[7] Set II encompasses the behaviors of trainees which the training program aims to deliver (Target Behaviors-1). The latter in turn become the behaviors (Affecting Behaviors-2) which the trainees will presumably exhibit in working with their clients. Set III encompasses the behaviors which clients will presumably exhibit as a result of the efforts of the individuals who have received the training.

The logic of the paradigm dictates that the target of the training program (Set II) should determine the nature, substance, content, and objectives of the program (Set I); that, in turn, the behaviors which the trained cadre are supposed to affect (Set III) should do the same for specifying the behaviors in Set II. Said another way; in general, desired affecting behaviors are optimally derived from desired target behaviors. If, for the case of Career Education, Set III encompasses what are typically called "pupil effects," then Set II encompasses the behavior of people who work directly with or on pupils. Subsequent observations will reveal that the case of Career Education requires subdivision of the behaviors in Set II into several distinct categories because of task differentiation across several "staff" positions. The implications of this requirement for Set I are both distinct and crucial.

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[6] I am indebted to my UCSB colleague, Professor Willis D. Copeland, for introducing me to the distinction between Affecting Behaviors and Target Behaviors.

[7] Note the possibility of further subdivision of Sets where the developers of a training program produce a "hands-off" or "stand-alone" package for use by trainers other than the developers.

A central and pervasively thorny training issue is how to achieve, conceptually and logically, the closest possible relationship between the training outcomes established for one group with the behavior of a second group. The logic of moving from Set III to Set II to Set I is apparent for constructing training programs, but the history of training demonstrates how devilishly difficult it is to guarantee that behaviors specified for Set II on the basis of an expected connection with Set III will, indeed, yield the behaviors desired in Set III. The personal characteristics (including free will) of the individuals and groups involved in Sets II and III and uncontrollable intervening variables are just too many and too varied. Even less can be assumed about guaranteeing a direct connection between Sets I and III; thus the difficulties which have plagued attempts to assess teacher preparation programs with the criterion of pupil effects.

Developers of training programs typically accommodate the conceptual and empirical hardships of validating training effects for one group against the behavior of still a second group by assuming that the target behaviors sought for trainees are, indeed, reasonably connected with desired behaviors in the group upon whom trainees will bring their capabilities to bear. This assumption largely permits belief in the value of training to persist. The belief receives consistent support from evidence that well designed and carefully developed training programs do achieve their intended effects and do achieve their specific objectives, at least as far as trainees themselves are concerned. However, the hallmark of effective training programs is their clear and unequivocal specification of trainee target behavior. R & D for staff training for Career Education will require the ability to generate rigorously specified trainee behaviors. The strategic question is whether the necessary data base is available for doing so.

Data Base for Trainee Behavior in Career Education

The AIR team has provided clues to both Set II and Set III behaviors by way of identifying (1) 15 learning activities which staff members in Career Education schools could be expected to lead or to offer to students and (2) nine desired student outcomes. The learning activities, presented to Survey respondents as part of the AIR instrument, were drawn from the literature on Career Education as descriptive of preferred staff behaviors. The pupil outcomes were taken from a U.S. Office of Education policy statement on Career Education. (USOE, p. 11)

The utility of the nine student outcomes and of the 15 learning activities for the purposes of the AIR Survey was high. Incorporation of the former into the AIR instrument provided information which enabled the AIR team to draw inferences about the extent of support for each outcome in respondent school districts (McLaughlin, pp. 62-3) and in AACTE institutions (McLaughlin, pp. 137, 146). The conclusion reached was that:

> The priorities of (K-12) student outcomes as viewed by schools of education were in complete accord with the priorities viewed by respondents to the local school district survey. In both cases, the emphasis is in the area of improvement of education overall (highest priority: assuring competency in basic skills); and less emphasis is placed on specific career development stages (lowest priorities: equipping students with skills for occupational entry and success, and placing students in a paid occupation or in further education). (McLaughlin, p. 146)

Use of the 15 learning activities enabled the AIR team to make a number of observations and to draw a number of inferences about the extent of and preference for employing each of the activities in local school districts. The data on activities appear in three different formats: first, by percentage of students involved in elementary, middle, and secondary grade levels; second, by grade level where particular activities were primarily clustered; third, by percentage of activities conducted by teachers, without counselor participation. The AIR team attributes the considerable variability which shows itself across the 860 reporting school districts to the fact that the Survey touched a representative sample of districts rather than only districts which were known to have adopted career education in aggressive or concerted fashion. Specifically, the data reveal a range of 3% to 30% for involvement of students in elementary grades in the 15 learning activities; 10% to 40% in middle grades; 28% to 47% in secondary grades. Teacher participation, as distinct from counselor and administrator participation, varies widely -- both by learning activity and by grade level. Within the elementary grades, the percentage of activities conducted by teachers ranged from 0 to 18; in the middle grades, from 2 to 24; in the secondary grades, from 3 to 14.

However useful the statement of the nine student outcomes and the 15 learning activities may have proved for AIR's reporting tasks, neither is sufficiently precise or specific to serve as indicators for the behaviors which would properly fall under Set III or Set II, respectively, of the general paradigm for developing staff training programs. At best, the statements which appear in the AIR instrument serve only as clues or leads to the specification of desired behaviors.

A more useful data base for rigorous specification of desired trainee behaviors is the set of 105 goal statements provided by McKinney and her associates. (McKinney et al., pp. 10-62). Despite disclaimers about the level of generality of their goal statements and the explanation offered as to why they elected to offer very broadly stated goals (McKinney et al., p. 5), the array does offer an extremely useful starting point for serious R & D effort pointed to a systematic staff training program. The words, starting point, are used advisedly because of the need to exercise great care and judgment in assembling, adapting, and refining the Ohio State statements into logically coherent and conceptually sensible sets. There is no reasonable way in which all 105 goal statements can be used in toto or as they now stand for the development of a single training program.

All of this is to say that there is not yet available a sufficiently precise and clear statement of desired staff behaviors (Set II) which can properly serve as the basis for the systematic and rigorous development of one (or more) staff training program(s) to serve Career Education as an educational reform movement. If any useful contributions to staff training for Career Education are expected from R & D, in the best sense, the creation of the sufficiently precise and clear statement(s) is a first order of business. However, and this is crucial, it is hardly likely that creating the statements (as done by McKinney et al.) separate from taking responsibility for building a specific training program will materially advance the current status of staff training. In short, a total development effort is required, not more statement generation in isolation.

Implications for Training of Differentiated Staff Responsibilities

The AIR data and findings confirm the common-sense expectation that "staff" is by no means a single entity. Comparison by the AIR team of the extent of involvement of teachers, counselors, administrators, and "work world representatives" in both the 15 direct learner activities and eight support activities revealed that teachers were generally more involved in direct learner activities than any other group, followed by counselors, administrators, and work world participants. Where there was involvement in such activities, the nature of the involvement was more alike across teachers, administrators, and community persons while counselors concentrated on substantially different activities. Counselors were also more associated with activities at the secondary school level; members of the other three groups "were more frequently associated with activities that occurred at all grade levels..." (McLaughlin, p. 76)

Administrators were generally more heavily involved within the support activity set than within the direct learning activity set, but surprisingly enough less involved than teachers and counselors on seven of the eight support activities specified in the AIR instrument. "Teachers and counselors were most involved in obtaining, adapting, and developing instructional materials; administrators were most involved with communication to the public..." (McLaughlin, p. 78) The summary conclusion was that, "The roles of different categories of individuals were not completely interchangeable: Each category tended to emphasize certain activities." (McLaughlin, p. 82)

It is abundantly clear, then, that the development of staff training activities for Career Education requires not only significantly more precise specification of desired "staff" behaviors but also systematic attention to training activities differentiated, in some if not all respects, by "staff" role responsibilities. Consideration is in order not only for incumbents of the full gamut of professional educator positions but also for paraprofessionals and lay citizens (lay, that is, in the sense of professional education, however expert they may be in their own endeavors). Role-specific training alternatives desirably will include attention also to instructional "delivery" behaviors, counseling "delivery" behaviors, and "support" behaviors offered by a variety of staff and adjunct persons. Finally, there remains the need to consider the training requirements of those staff members who will lead or conduct the staff training programs.[8]

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[8] See, for example, the AIR finding in this regard. "The need for staff development and the lack of competent persons to train the staff were among the most important problems for implementation of career education, according to the respondents of the nationwide survey of local school districts." (McLaughlin, p. 145; underscoring added)

III. CHARACTERISTICS OF SYSTEMATIC R & D PERTINENT TO STAFF TRAINING

The fundamental and legitimate mission of systematic R & D work is to deliver thoroughly tested and validated alternatives to existing practice or state of the art. A tradition of vigorous and rigorous R & D work is relatively new to education, with the exception of the field of test development. Only within the last 20 years, and more particularly the last decade, has appreciation grown for, and evidence appeared to support, the contribution which R & D can make to educational practice. Today, education can find examples, and properly look for more, of R & D efforts which have delivered new curriculums, new instructional methods and processes, new organizational forms and arrangements, new evaluation and/or testing programs, and new training programs. A hallmark and central characteristic of "modern" development work in education is emphasis on thorough testing and validation of the alternative(s) produced. Presentation of the synopsis of an actual case of the development of a training program will serve to illustrate what is meant by a "thoroughly tested and validated alternative" to existing practice or state of the art.

The Instructional Supervision Training Program -- A Brief Illustration of Systematic R & D[9]

The initial development target was a training program for supervising teachers who work with student teachers in the schools. The developers had noted with interest how many people said that student teaching was the most important part of teacher preparation and with dismay how little effort went to equipping the supervising teacher for actually supervising the student teacher's performance.

Training activities in the first year of the development period (1970-71) focused on four skill areas judged, by reference to a preferred model of supervisory behavior, to be critical in the performance of the field supervisor; namely, observing, analyzing, prescribing, and counseling. Each skill area included a set of specified constituent skills. The areas were treated as sequential and systemically related.

Twenty-nine supervising teachers located in schools nearby the university which was the site of both the teacher preparation program and the development effort, participated in the first round of training. A set of 10 tests, specially constructed for the project served to provide information on whether the training achieved the desired results and to generate formative feedback for program modification. Test scores revealed that the training program did yield acceptable results in three of the four chosen skill areas.

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[9] See Boyan and Copeland, "A Training Program for Supervisors: Anatomy of an Educational Development," for a full treatment of the case. A number of other developments could have been selected for the illustrative case. The supervisor training program was chosen because of the author's familiarity with the details.

Analysis of the test data and verbal feedback from participants led to substantial modification of the training program for the second year (1971-72), including reorientation of the preferred model of supervisory behavior and specification of terminal objectives. Trainees included 26 "new" and 10 "repeat" participants. The groups were treated separately on seven tests (newly and specially constructed for the second year's effort), five administered pre- and post, two administered only post. Evaluation results revealed that the training delivered nearly all of the pre-specified objectives of the program at levels judged satisfactory by the training staff.

For the third year (1972-73), the U.S. Office of Education, which had been the extra-mural sponsor from the start, contracted with the developers to prepare a "hands-off" instructional package for improving supervision skills in Teacher Corps projects.

> The major task of the UCSB staff was to convert the previous year's training program into a set of materials which Teacher Corps projects could use without the participation or intervention of the developers. Accordingly, the staff launched a systematic development effort to prepare, try out, and revise a self-contained package which would include all of the directions and all of the instructional units required by a user to conduct, on his own, a successful training program for supervisors.
>
> The development work involved (1) refining the prevailing view of supervision to which training would address itself, (2) designing specifications for the instructional package, (3) preparing the preliminary units of instruction, (4) pilot testing and revising the preliminary units of instruction, (5) field testing the instructional units, and (6) revising the units on the basis of field test results.
>
> During the late summer of 1972, the staff created a preliminary set of directions and training materials in a form judged to be specifically oriented to supervisors in Teacher Corps projects. Preparation of the preliminary form drew on (1) detailed analysis of the results achieved in the 1971-72 training program, (2) further review of pertinent literature, (3) the expertise of the UCSB staff and consultants, and (4) commentary from Teacher Corps personnel about the conditions of instructional supervision especially applicable to their situations. The preparatory activities led to the generation of a fresh set of terminal objectives, enabling objectives, training activities and materials, and associated evaluation instruments and procedures. (Boyan and Copeland, p. 101)

The "hands-off" package included (1) a Training Coordinator's Guide, (2) a set of Readings, (3) an associated set of Handouts, (4) five videotapes, and (5) four audiotapes. Approximately 40 hours of pilot testing preceded preparation of the materials used in the subsequent field test in which eight Teacher Corps sites, located in widely scattered parts of the U.S., took part. The developers also arranged for the participation of a local group to insure the availability of at least some evaluative data for revision in the event of unanticipated difficulties in the eight distant sites. All training was conducted by training coordinators who had not received previous exposure to the training materials. The developers did not intervene directly in any of the field test sites other than distributing the training materials and testing instructions.

A specially constructed Instructional Supervision Test Battery, consisting of four major parts, was used to collect the field test data. A rigorous research design was employed for analysis of field test results. Taken, together, the field test data offered substantial evidence that the preliminary set of training materials contributed measurably to improving the supervisory performance of subjects who participated in the training. Sixty scores were available for the analysis of training effects; 53 were in the desired direction and 45 were statistically significant. Additional feedback came in the form of questionnaire returns from the field test sites and of verbal input from training coordinators who assembled for a field test evaluation conference at the developer's headquarters.

After analysis of field test results, and review of the written and verbal feedback, the developers subjected the entire package to one more revision (which consumed three full months' work) and delivered the final version to the sponsor, per contractual agreement. Since 1973 the program has been used regularly and extensively for training purposes at Teacher Corps sites across the nation.

Development of the Instructional Supervising Training Program covered a time span of 40 months, employed the equivalent of five to six full-time staff members for a total of somewhere between 16 to 20 man-years of effort, and cost approximately $100,000 per year for each of three fiscal years for a total of almost $300,000.

Implications of the Case for Career Education Staff Training

The illustrative case reveals that systematic R & D work is time-consuming, highly technical, conceptually and procedurally complex, extremely demanding of developers and their colleagues in the field, expensive -- and beneficial. The case also reaffirms the critical importance of precise and clear specification of desired trainee behaviors, not only for constructing the training experiences which will hopefully deliver the desired behaviors, but also for the continuous and repeated testing and evaluation which are so central to the character and ethos of rigorous R & D.

Any strategy, or set of strategies, for application of a rigorous R & D mode to staff training needs for Career Education must, then, take into consideration the time requirements, the expense, the personnel requirements and capabilities, the precise specification of desired trainee behaviors, the formative evaluation, and the iterative process which is characteristic of the mode. The evidence offered by both the AIR Survey and by McKinney et.al., clearly implies that very little in the way of systematic R & D effort has yet been applied to what the AIR team reports as "staff development" for Career Education. The evidence offered by the Instructional Supervision Training Program, and comparably successful instances undertaken elsewhere, demonstrates conclusively that staff training lends itself readily and appropriately to the invocation and application of a rigorous R & D mode.

There is obvious dislocation between what is and what could be in training for Career Education. In part, the dislocation derives from the very speed and intensity with which Career Education has spread through the education community within a brief five-year span. The emphasis of protagonists and advocates on propagation of Career Education via demonstration and installation has, to date, provided little opportunity for and little investment in the systematic and rigorous development of staff training in behalf of the movement (or of evaluation of effects). Even where there has been heavy investment in R & D for building models of Career Education delivery programs, sponsors have given little attention to or support for the development of companion staff training.

One option for reducing or removing the disparity between what is and what could be is application of the R & D mode to raise the quality and to increase the quantity of staff training; but it is only one option. Consideration of other options and of their relative merits will follow a brief excursion into the characteristics of Career Education as a reform movement and their implications for R & D strategies for Career Education staff training.

IV. SALIENT CHARACTERISTICS OF CAREER EDUCATION AS A REFORM MOVEMENT

Protagonists, advocates, and supportive publicists present Career Education as a singularly comprehensive reform movement. Indeed, few proposals for educational reform, past or present, rival Career Education in scope and ambition. Fewer have commanded the attention and the resources which the movement has attracted in its brief life span. Large scope, high ambition, great attention, and heavy investments concentrated in a short period have contributed not only to diffusion but also to diffuseness, a condition noted in the AIR Survey of actual school practices and a condition readily ascertained through review of even a small proportion of the extant literature. Brief analysis of essential characteristics of Career Education will be assisted by employing a general rubric for classifying educational innovation.

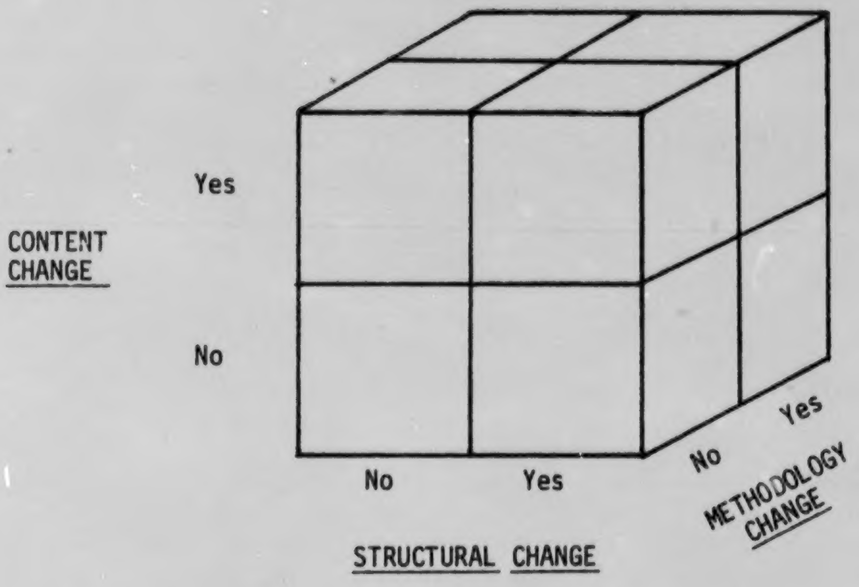
A General Rubric

One way of classifying innovations is to identify the extent to which they are exclusively or primarily (1) substantive or content in nature, (2) structural or organizational, or (3) methodological, in the delivery sense. To illustrate; PSSC Physics and BSCS Biology are examples of the first category; variable modular (flexible) scheduling, team teaching, and the Multi-Unit school are examples of the second category; the oral-aural approach in teaching foreign language, Individually Prescribed Instruction, and the mastery learning approach are examples of the third category. The classification scheme can be elaborated by cross-tabulating the categories to permit identification of the presence of more than one pertinent dimension or characteristic incorporated in a given innovation. (See Figure 2) The University of Pittsburgh LRDC/Research for Better Schools version of Individually Prescribed Instruction would, for example, appear as a combination of structural and methodological change; the open classroom, as borrowed from Britain, would appear in the same cell but pushing toward substantive change also.

A given innovation or reform can also be classified as simple or complex. For example, PSSC Physics is properly considered a simple innovation on the grounds that it involved, fundamentally, the change of only one high school course, while SMSG Mathematics (also a content change) claims a designation as complex because of its implication for introducing new subject matter across a wide array of grade levels.

Application of the rubric to Career Education as an educational innovation allows identification of several features which are salient for consideration of R & D strategies for staff training.

Figure 2. A Pictorial Representation of a Three-Way Classification Scheme for Educational Innovations


Yes
CONTENT CHANGE
No
No
Yes
STRUCTURAL CHANGE
No
Yes
METHODOLOGY CHANGE

Specific Features of Career Education

Scope. In scope, Career Education covers not only the typical K-12 grade span, but also the post secondary period and experiences past conventional formal schooling. "Life-long" is an adjective often used to identify the years for which Career Education in pertinent. The proposed scope alone is sufficient to classify career education as a complex rather than a simple educational innovation. The implication for staff training is involvement, as noted in an earlier section, of incumbents of a wide variety of professional educator positions and "lay" roles.

Content. The substantive emphasis of Career Education is the world of work -- as a vehicle to stimulate learning, as a site of study, as a domain to be experienced, and as a target for preparation. The workplace is the stage on which Career Educationists see the lives of American citizens running their respective courses. The staff training issue which derives from the centrality of the world of work in Career Education is, simply put, acquisition and effective use of relevant and pertinent knowledge about that world. How much knowledge, what kinds of knowledge, and knowledge for what use are necessarily relevant questions -- as are questions of differentiation in each of these respects at different grade levels and for distinct staff roles such as teacher and counselor.

Career Education is not, however, a new subject to be studied in lieu of or in addition to other subjects; rather, Career Education is to be incorporated into all of the existing school subjects at all grade levels. What is envisioned is intensive and extensive penetration of the entire school curriculum of emphasis on the world of work, both in respect to knowledge about that world and improvement of career decision making skills. From thorough infusion into the entire curriculum of emphasis on careers, say the advocates, will come increased motivation and performance in school as well as increased reality and pertinence of career choices. The desired penetration of all subject fields, across and within grade levels, distinguishes Career Education from those curriculum reforms which have been more subject-matter discrete and contributes to classifying the proposed reform as a significantly complex innovation.

The implication for staff training is substantial. Not only are staff members required to acquire more knowledge about the world of work but they are also expected to use that knowledge as the basis for teaching their various "subjects." There is also an obvious implication for achieving articulation of a substantial degree within and across grade levels, from the earliest to the latest years of schooling.

Structure. On the structural side, there are two particularly salient features. One is to erase or eradicate the implicit and explicit tracking arrangements which separate children and youth into academic, vocational, and so-called general curriculum paths. Advocacy for this particular rearrangement is based on both functional and social grounds. Separation or segregation of pupils into conventional tracks places the academically oriented at a disadvantage with respect to developing marketable skills and/or understanding of the world of work, the vocationally oriented at a disadvantage with respect to the development of academic capabilities, and the general curriculum students at a disadvantage in both respects. Further, tracking tends to emphasize the school's sorting function rather than its function of promoting social cohesion.

The second salient structural feature is removal, or at least substantial reduction, of the walls and barriers which separate school and community. The intent here is not of the same order or inspired by the same motives as the more politically oriented "community control" movement. Rather, the intent is to take advantage of expertise about the world of work which resides outside the school by inviting into the school those people who are the experts and by arranging for pupils and staff to spend more time "out there" to enrich their experiential base. Connected to this fundamental structural change, there is an additional content change, namely, "academic" credit for the experiences outside the school walls. For practical purposes, the structural changes apply with more relevance to the secondary school level than to the earlier grades, especially with respect to pupils and staff spending more time in the community's world of work. It would be misleading, however, to assume that the structural rearrangements are intended exclusively for the secondary school level alone, because career exploration at the elementary school level also would involve significantly greater contact and use of the "community's" resources.

Structural change is not advanced by Career Education enthusiasts without due regard to long-standing arrangements for projecting youth into the community for purposes of enhancing their vocational development. Programs of the cooperative work/study variety which have existed for many years in American secondary schools, especially in vocational and distributive education offerings, are not only recognized but also referred to as experiences which would be desirable for ever-expanding volumes of clients. Just as the content dimensions of the Career Education movement reveal its complexity as an innovation so do its structural features.

The implications for staff training appear to be at least two: first, pursuing ideological reorientation of staff about the values of grouping and tracking purposes; second, convincing and equipping school people to make better use of the "community's" resources for assisting and improving the education of the school's clients.

Method and delivery. On the method/delivery side, the changes proposed by Career Education enthusiasts are not as clearly or specifically advanced as the changes in scope, content, and structure. There appear to be suggestions for more emphasis on affective approaches, for more compassion and understanding, for more concern with the developmental needs of students, and for a generalized improvement of instructional methodology. The advocates of Career Education have addressed themselves less to issues of how teachers teach or how counselors counsel, and more to issues about what is taught, where it is taught, why it is taught, what counsel counselors provide, and structural arrangements. In brief, the changes desired in the core technology of schools center more on substance and purposes, on structure and supporting conditions, and less on methodology *per se*.

The implication for staff training is not that methodology is irrelevant; rather it is that methodology will be treated as integrally related to appropriate ways for delivering the "new" content.

Additional Implications for Staff Training Programs

Career Education, then, comprises a comprehensive reform syndrome. While it is not solely a structural innovation like variable modular scheduling, while it is not solely a substantive innovation like SMSG, and while it does not involve precise methodological changes like Individually Prescribed Instruction or Individually Guided Education, Career Education shares with all of these proposals for change the absolute necessity for introducing change in the activities of staff and clients on no less than a total school level, with definite implications for articulation across school lines.

Given the nature of Career Education as an innovation, a first strategy for staff training appears to be emphasis on the development of training programs for a unit of adoption which is no less than school wide. If any unit less than the entire school is considered as the pertinent staff involvement base, there is little hope of securing and maintaining programs for students in which Career Education is the central focus across the grades as well as in individual classrooms, where world of work concerns penetrate the entire curriculum rather than receive separate attention here and there, depending on the interests of a given teacher or counselor.

A second element of strategy relates to the vertical articulation of school units. This target is, of course, an old one and one more often missed than hit. However difficult may be realization of success, the protagonists and advocates of career education unabashedly press for and anticipate curriculums which mesh neatly from grade to grade, level to level, as well as within grades and across subject fields. The unit-of-adoption consideration suggests, then, that faculty members in adjacent grades of different school levels would need, somehow, to be commonly involved in at least some aspects of the total staff training program.

A third implication for staff training strategy is concentration on staff desire or will. Staff training targets of knowledge and skill may well be necessary for advancing the cause and practice of Career Education. Attention to the target of desire or will is also strategic when confronting so complex a reform as Career Education. Consideration of this dimension will appear in the next section, which includes analysis of alternative R & D strategies for staff training.

V. R & D FOR STAFF TRAINING -- ALTERNATIVE STRATEGIES

Examination of the characteristics of staff training has revealed two essential considerations: first, that R & D based training requires a precision and clarity in the statement of desired trainee behaviors which is not yet available for Career Education; second, that observable role differentiation requires attention to differentiation in training for a wide variety of staff positions. In addition, there is also need to consider the training of the trainers who will actually conduct training programs.

Examination of the characteristics of systematic and rigorous R & D has revealed that (1) staff training is a domain which lends itself readily to an R & D mode under certain conditions, (2) the generation of thoroughly tested and validated training alternatives is a reasonably and legitimate expectation of serious R & D work, (3) such R & D work is time-consuming, very expensive, technically demanding, conceptually and procedurally complex, dependent on sophisticated personnel skills, and (4) a rigorous R & D mode is not yet characteristic of staff training in Career Education.

Examination of several salient characteristics of Career Education as a reform has revealed that (1) Career Education is an exceedingly complex innovation along both substantive and structural dimensions, (2) an entire school represents the unit of adoption which is minimal for potentially successful implementation, (3) tight articulation of school units within a school district is also necessary for successful implementation. A distinct implication for staff training is involvement of the staff of an entire school as a base for training with subsequent attention to achieving requisite articulation.

Prior examination of the AIR Survey data revealed that the investigators had discovered to their satisfaction a need for staff training on which there was general agreement at both local and state levels. The AIR investigators concluded also that the view expressed by other observers about inattention by schools of education to Career Education generally and to staff training specifically was accurate.

Before turning to implications of these several examinations for R & D strategies for staff training for Career Education, it is appropriate to comment on the question of why training itself is at all a matter of concern. One way of putting the question is to ask whether the intent is to convert the nonbelievers in the interests of further spread or adoption of the innovation or whether the intent is to equip the believers to perform more effectively in behalf of successful implementation. If the former intention prevails, the emphasis can more properly be considered a missionary or evangelical intention for which a training strategy is less pertinent than a diffusion strategy. If the latter intention prevails, then a training strategy is relevant.

Coupled with a training strategy adopted for the purpose of program improvement desirably would proceed a strategy which emphasizes systematic evaluation of whether the introduction of Career Education as an intervention actually yields the intended results or effects. Recall, for example, that the AIR team concluded that there were two "especially prevalent" needs: staff training and evaluation of Career Education programs. (McLaughlin, p. 179) In short, investments in staff training for Career Education make sense only if parallel investments occur in evaluation, not only of the effects of the training itself but also of the effects of the innovation which the training is intended to benefit.

The General Setting

Program development in Career Education has moved, fundamentally, on two fronts: first, "model development" in the R & D mode supported initially by the U.S. Office of Education and later by the National Institute of Education; second, demonstration activities supported by the U.S. Office. The R & D model developments took place in a relatively few sites and have yielded a small set produced by the Center for Vocational Education (School-Based, or Comprehensive, Model) and four Educational Laboratories (Experience-Based Models). Earlier investments in other model types were less productive. Demonstration activities, underwritten by a variety of Federal funding sources, have occurred in local education agencies. State Education Agencies have also received funds to stimulate and to support their own and local activity.

It appears that model development has involved some demonstration and associated training features and that some model development has taken place in several demonstration sites. The latter have typically provided for some degree of staff training. On the whole, however, the emphasis in the two different sets of sites -- R & D firms and educational agencies -- has varied according to the primary interests and authorizations of the sponsors. Development investments have emphasized the production of tested alternatives with high potential for exportability. Demonstration investments have emphasized adoption and implementation of Career Education programs adapted to and consistent with local requirements and aspirations. Accordingly, the demonstration investments have resulted in a condition reminiscent of ESEA Title III centers, in this instance all focusing on one innovation type, which characteristically have not employed a rigorous R & D mode in the establishment of program activities. Emphasis on local needs and conditions has reduced potential for direct exportability. The distinction between the model development mode and the demonstration mode which is salient for training strategies is that the former lends itself to consideration of a "model-specific" approach while the latter lends itself to a "site-specific" approach.

Two R & D alternatives are, then, investment in model-specific training programs and site-specific training programs. A third alternative derives from the earlier observation that a wide variety of staff positions is necessarily involved in implementing Career Education programs; namely, investment in position-specific programs. There also remains the possibility of investing in programs which approach staff training from a general or generic point of view. What are the advantages and disadvantages of the four respective strategies -- generic, site-specific, model-specific, and position-specific -- considered from an R & D perspective?

Generic Approach

Consideration of the generic approach requires recall of the general staff paradigm presented in Section II. The central question is whether it is feasible and wise to develop, via the R & D mode, a generic training program which will meet the requirements of Set I (Affecting Behaviors-1) in the light of the wide variety of versions of Career Education which have already been adopted in various sites and which may be selected in future adoptions. The answer to the question depends substantially on the connections which are evident, or for which a case can be made, between Set I and Set II (Target Behaviors-1/Affecting Behaviors-2) of the general staff training paradigm. If the staff behaviors for Set II (the target of training) are so generic to the effects desired in Set III (student behaviors), irrespective of the diffuseness of local activities noted in the AIR Survey, then it is sensible to contemplate investments in R & D efforts addressed to the development of generic staff training programs. If, however, the desired staff behaviors are or must be specific to activities which are associated with particular versions or models of Career Education, then it is less compelling to invest in R & D for staff training programs of a generic nature. Preference for a generic approach assumes, in short, that there is a large enough body of knowledge and skill common to all Career Education models and versions for developers of a staff training program to use as the basis for precise specification of desired target behaviors for the program.

Perforce, this assumption prevails among the advocates of installing Career Education staff training programs in schools and colleges of education. Otherwise, there would be no solid ground on which to base their advocacy. How could the professional schools seriously consider program development to serve a particular version of Career Education in a particular site? Unhappily, there exists precious little data to support the view that the target behaviors desired from staff training for Career Education constitute a sufficiently common core to warrant R & D investments in the development of staff training programs. Neither the 15 learning activities used in the AIR Survey instrument nor the present form of the 105 general goals cited in the Center for Vocational Education publication meet the test of what is required for constructing a suitable generic training program. Both provide leads and clues but just that much.[10]

Another assumption tied to a generic approach is that the developers of one or more training programs would commit themselves to either the preparation of a set of "hands-off" or "stand-alone" materials for use at any Career Education site or the training of training cadres who would, in turn, train others.

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[10] In a personal conversation with the author, Dr. Sidney High of the Office of Career Education, USOE, offered the opinion that there was enough commonality in orientation and practice across Career Education sites to warrant serious support for a generic approach to staff training. Systematic documentation to demonstrate the point is not yet available.

To assume otherwise would imply that the developers themselves would be prepared to conduct training programs at the site level, an expectation which is patently unreasonably given the number of potential training sites. The preparation of "hands-off" materials is, without doubt, the most complex, time-consuming, and costly of all training modes.

A further assumption is that there would be high likelihood of acceptance and adoption of a generic training program at individual sites, which already exhibit considerable variety in the specific version of Career Education set in place. The potential for slippage in the realization of this acceptance is substantial.

The generic approach appears to possess more potential for promoting the adoption and installation of staff training programs at the college and university level than for direct application and utility at the local school district level. The approach is both compatible with and comparable to conditions which now prevail in teacher preparation programs. It is, however, not all that common to find higher education preparation programs, pre-service or in-service, which serve or focus exclusively on a given curriculum reform movement. Exceptions exist, of course, especially where a given faculty member or set of faculty members have either invented or been closely associated with the invention of a given innovation or reform movement. The generic approach, in principle, may be suitable for the preparatory environment of a professional school, but it carries no guarantee that any given school will adopt a generic training program which has been developed to serve a parochial, rather than catholic, end.

In sum, the generic approach contains some, but only limited, utility as a route for R & D investments in staff training for Career Education.

Site-Specific Approach

The AIR Survey data and other available sources of information say that Career Education, in various versions and to varying degree has appeared in a substantial number of school districts across the U.S. The Survey notes, and others agree, that staff training is crucial both for improvement in and further spread of Career Education. The argument is that if Career Education is to deliver the goods, then there must be substantial expansion of staff training at the school district and school level. Is R & D investment feasible for developing staff training programs for as many different sites as are now or may become substantially involved in the Career Education movement? The answer to this question is a categorical "no."

The total number of possible claimaints could be as many as 16,000 school districts. At a modest investment level of $100,000 per year for three years for producing a reasonably sound training program, the annual cost would be $1,600,000,000 per year and $4,800,000,000 over a three year period. Even if it were possible to persuade the Congress to appropriate that many dollars for developing sound training programs, there is not available across the entire nation a large enough cadre of qualified R & D personnel to do the necessary development work. The site-specific route looks, then, to be an infeasible alternative for R & D investments, even if the approach might be considered suitable for other types of investments, such as the "training" offered in connection with ESEA Title I activities and bilingual education programs.

Model-Specific Approach

What about the model-specific route, particularly in connection with those model development programs in which the Federal government has already invested heavily in producing a tested Career Education alternative? A few of the Federally supported locally based demonstration efforts may equal the model development programs in quality, in rigor, and in demonstrable test of effects. Whether some local demonstration programs approximate the criterion of fully developed and tested alternatives to existing practice is, however, really not the point. The point is that there is only a small handful of "models" which represent reasonable quality of product and have involved sufficient test of effect to consider seriously as the basis around which and through which to make R & D investments for staff training. The relatively small number of potential sites makes selection of the model-specific route an attractive alternative.

Another advantage of the model-specific choice is that each of the models, especially those developed via a rigorous R & D mode, is likely to have identified with it a rather specific set of staff behaviors toward which and for which a training program could reasonably aspire. Also, each model which deserves classification as a "model" will likely have been developed by a group which has already demonstrated R & D capability, a singular condition when considering possibilities of investment pay-off. In addition, the group which has performed the development work is sure to have a high psychological and intellectual stake in taking its product through the staff training stage. Moreover, the available evidence suggests that staff training activities designed and conducted specifically for implementing a given R & D product, process, or organizational form have materially enhanced the performance of the product, process or form. We can see the evidence in the various institutes supported by NDEA and NSF in connection with specific curricular reforms, the workshop activities which have helped the adoption of Individually Prescribed Instruction, the training activities which have enhanced the spread and implementation of Wisconsin's Individually Guided Education/Multi-Unit School development. The more the virtues of the model-specific route are examined the more the advantages appear to lie in the direction of electing this route as the optimal choice for R & D investments for advancing staff training for Career Education -- under ordinary circumstances.

The circumstances are, however, not ordinary. It is highly possible that the model-specific route, in the more conventional sense, is really no longer an available option. The agressiveness employed by the U.S. Office of Education and other protagonists in propagating Career Education may have preempted the model-specific choice. The success of the protagonists may have created a condition wherein so many local educational agencies are now well into and committed to their own version of Career Education that they may not wish to turn back the clock by looking to the rigorous developers of fully tested R & D products for their wares and help. Given the highly charged emotions and strong commitments which have developed within the Career Education community since the first formal presentation in 1971, it is highly doubtful that any voice calling for the delay of further investments in demonstrations and installation until after rigorous development of several training models has been completed and fully tested would be heard or heeded. Nor do we have available any evidence -- hard data -- which argues convincingly that the supposedly rigorously developed models made available by R & D centers and laboratories are superior to what has emerged in a wide variety of local settings. Such evidence could presumably be made available through a studied and measured evaluation effort which is still to come. However the question of relative merits may be settled -- if it ever is -- the simple fact of the matter is that there is already too much Career Education activity already under way across the nation to count on the political and diplomatic acceptability of a model-specific strategy for R & D investments in staff training.

Position-Specific Approach

The position-specific approach represents a special case of the generic approach in that it assumes sufficient commonality of desired training behaviors for specific staff positions (teacher, counselor, administrator, various specialists) to warrant training programs to be developed for each position. An approximation of this approach has already been undertaken at the Ohio State University Center for Vocational Education, where 11 different staff training guides have been produced.[11] The guides themselves represent one portion of a larger set of Staff Development Units which attend to three different levels of purpose: first, awareness and orientation; second, knowledge and skills pertinent to specific school district positions; third, competencies appropriate to functions such as program installation and placement activities.

One of the merits of the position-specific approach is that it accommodates a serious concern of the more generic route; namely, the difficulty of finding sufficient common ground across a wide variety of staff positions to serve as the basis of generating specific target behaviors for staff training. An additional merit is that it permits the possibility of involving in the development of training programs individuals and groups who are already intimately familiar with the training and operational requirements of the staff positions for which training for Career Education would be intended. To illustrate; the University Council for Educational Administration has long engaged itself in developing training programs for school administrators, of both a more general variety and a specialized nature. Such a body could reasonably undertake the rigorous development of a training program for several levels of school administrators in the interests of Career Education. Such organizations, as they may exist in other fields, individual universities, non-profit and profit-making educational R & D firms are all potential bidders for the development work which would be involved in preparing and implementing position-specific training programs.

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[11] Information on this activity came to the author in a telephone conference call involving Robert Taylor, Lorella McKinney, and Robert Norton of the Center's staff.

On the debit side there remains the problem of how to insure fit with each other is a given local site of a significant number of position-specific training programs (say, a dozen) developed by different R & D groups. If the position-specific route is selected, sufficient specification of a general framework within which each contractor would be constrained to work would appear to be a crucial element in the sponsor's statement of the desired scope of work. Achievement of the necessary specification would require not only a monumental first piece of work, but it may not be realizable without raising charges of Federal determination of a single, preferred model or version of Career Education. USOE has thus far studiously avoided the presentation of "the one best way" for all to follow. If the position-specific route is elected, a change in Federal posture may be required if there is to be any hope that training developed by different firms for each of several positions would mesh neatly. The required change in the Federal stance may simply not be acceptable in Washington or in the field.

Another Option

There remains the option of eschewing R & D investments as the wisest policy for advancing the amount and increasing the variety of staff training for Career Education. Despite the demonstrated applicability of the R & D mode to training and notwithstanding the evidence that rigorously developed training has achieved intended trainee effects, the R & D route may just not be the way to go. If the desire is to improve staff training in demonstrable fashion and in limited degree, investment in R & D for that purpose is both desirable and necessary. If the desire is to increase the amount of staff training without regard to its known effects, then R & D investments are neither necessary nor sensible. The choice of whether the R & D alternative represents wisest and best policy depends on what the policy makers wish to achieve.

To be specific, if they wish to encourage the spread of Career Education, they can readily dismiss R & D investments in staff training and concentrate on affecting the will and desire of the non-believers and non-adopters in favor of the movement. If they wish to increase the amount of training in sites where Career Education has already been adopted or is looked upon favorably, they can take the straightforward step of earmarking more program operation funds for training activities, an option which the AIR Survey indicates is already preferred at both local school district and State levels. If they choose these options, they may also wish to read A Foundation Goes to School to secure an estimate of possible long-range dividends. (Ford Foundation)

A Personal Recommendation

I will close with a recommendation for further R & D investment in Career Education which assumes that the wisest and best step at this time is to assess the claims made for the proposed reform. Further R & D investments in training for Career Education do not make any real sense unless there is reason to believe that Career Education comes close to achieving the objectives which its protagonists claim.

I also suspect, however, that the current state of the movement has produced only a few situations which are well enough advanced to enable a well-designed and carefully executed evaluation to take place. A broadside evaluation of the type used after the first five years of life of ESEA Title I is likely to yield about the same kinds of results; inconclusive to negative. A more reasonable approach would be that comparable to the one used for the Follow-Through program, but with several modifications.

I propose that a small number (six to 10) of sites which knowledgeable people would agree represent the finest extant examples of Career Education be selected for a carefully designed longitudinal evaluation program. In order to insure that optimal conditions prevail, I recommend that each site, with the advice of R & D experts, set the specifications for staff training in accord with target behaviors for the version of Career Education adopted in that particular site. The development of the training program would represent a combination of site-specific and model-specific modalities, with provision for position-specific training as appropriate to the situation. While the training program is under development, by a firm with recognized R & D capability and funded specifically for the task, base-line data for the longitudinal evaluation would be collected, by a firm with recognized evaluation capability.[12]

After the development of the training program and after training is actually experienced by a large enough proportion of the staff to make a difference likely, data collection on effects of the introduction of Career Education, considered an intervention, should commence.

Everything possible should be provided to make the intervention work. If sufficient evidence materializes to support the value of Career Education as a desirable intervention, then credence can be reasonably given for considering additional R & D investments in staff training, for which a set of 6 to 10 examples would be available for others to examine.

If rigorous evaluation and systematic development of staff training are coupled with each other in a few carefully selected sites, I favor the R & D investments in staff training for those few instances. Otherwise, I recommend other uses for the dollars.

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[12] The term, firm, is used in a generic sense; the "firm" could be a university, an R & D organization, or other body capable of doing the job.

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PART II

RESPONSES TO "R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

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I would like to begin by issuing a couple of disclaimers. The opinions and thoughts I express are my own and reflect the policy of neither the Board nor the Administration of the Chicago Public Schools.

First of all, I wish to join Norman Boyan in making clear my own position on the concept of Career Education as the major reform movement in education. I am not a true believer. I believe it is a concept in search of a rationale, a concept with little visible means of support.

As an educational concept, there's a lot less here than meets the eye; as a political concept, there's a lot more here than meets the eye. Federal policy — and funding is implementation of policy — has catapulted the concept into a cult. The movers and the shakers have not convinced me that the world of work and the needs of the business and industrial community of this nation should serve as the infrastructure upon which to hang public education. And I use the term "hang" deliberately in all its connotations. Unless one wants to call being a human being the ultimate career, I do not see the world of work as the center of all worlds; therefore, I do not see career education as the center of all education.

The primary question of learning to make a living and its relationship to learning to live still needs to be addressed. To send forth this paper "naked" of a rationale would be a disservice to the education community. The absence of a philosophical foundation to undergird the career education concept is bad enough, but the confusion is further compounded by the absence of flesh, the lack of substance. How can one proceed to fashion R&D strategies for staff development for a concept in search of a rationale and a "discipline" in search of substance?

Boyan, and rightfully so, points out that the sponsor's commission has preempted this particular task. I feel that the sponsor should commission a second, companion document addressing these prior questions and present both documents to the education community. Perhaps this second commission should be given to one of the high priests of the new cult and be critiqued by reputable scholars in the philosophy of education and curriculum.

Let me continue with some general comments on the paper Boyan has written. I would certainly score it high on readability because it is relatively devoid of jargon. The R&D community is not known for its track record on readability. Furthermore, the paper does cull from the National Survey of 1974-75 the significant considerations for addressing the question of staff development related to career education. This is no mean analytical feat when one considers the "telephone directory" proportions of the AIR Survey. One also appreciates the fact that Boyan has covered many pertinent and significant publications related to his review of the question.

Boyan's candor in making clear his personal position and his humor in his second footnote (p. 2) convinced me to "temporarily suspend" my own disbelief on the "why?" and the "what?" questions. I was curious as to his approach to the "how?" I think his use of "four constituent questions" to approach his task is clever. I was also curious to see how he would proceed to make something out of nothing. He earned his commission. The "four questions" for organizing his report ring true; systematic attention to each question in serial order is logical; and synthesis in conclusion is satisfying. The assignment is so deftly executed that the reader feels that Boyan's personal views have not biased the discharge of his commission.

The review of the findings or conclusions of the AIR study is very helpful (pp. 4-12). As one reads these conclusions (188 pages distilled to 8) one can't help but feel that the AIR study belabors the obvious. I know that I have not been invited to review the AIR Survey; however, Boyan's summary does point up the fact that great effort and money are being expended on career education.

Getting involvement of teachers prior to program implementation, involving the community, getting the support of the superintendent, getting adequate pre-service prior to implementation are all SOP for program implementation, and certainly not unique to career education programs. The modes and methods used for training noted on page 7 are again SOP. Though unintentional, perhaps, Boyan causes one to wonder at efforts expended by the AIR Study to deliver the ultimate finding that school districts need money for staff development — any kind of staff development.

Particularly, do the great cities, subject to negotiated Teacher Union Contracts, require money for staff development. Any program implementation requires that teachers are prepared prior to implementation. This means they must be paid to attend after-school workshops, or must be sprung by a cadre of substitutes, which also costs money. If staff development money becomes available in greater amounts for career education, then career education will be implemented like crazy from coast to coast. The philosophical curriculum questions pale by comparison to financial need. Prostitution has always been lucrative. The AIR Survey does establish need for staff development for career education. But its findings are generically true of staff development rather than specific to staff development for career education. If career education is a unique concept, then staff development for career education should have unique needs and unique dimensions. None have surfaced. Perhaps R&D money should be applied generically to staff development, rather than attached to a particular innovation.

The review of the Higher Education Survey and Other Views on Higher Education Participation (pp. 11-16) elicit less enthusiastic support for the concept. Perhaps this is because institutions of higher education have always been a little less hasty to make a discipline out of a non-discipline or to make substance out of a handful of feathers.

Boyan's comments (pp. 17-19) related to the disparity of enthusiasm between local school districts and state departments of education and institutions of higher education are particularly frank and honest. They lend credibility, honesty, and refreshing candor to his entire paper. His objectivity promised on page 2 is delivered with his final sentence on page 11.

Part II is a particularly useful section. The General Paradigm and the exposition describing the rigors and expenses involved in a total R&D effort related to staff development is particularly convincing. The setting forth of implications for differentiated staff responsibilities does ring true. A comprehensive grasp of the problem is generated in this section.

The synopsis of an actual case of what is meant by a "thoroughly tested and validated alternative" is particularly helpful (pp. 18-20). It does, however, stop short in its cost analysis. He states that the ISTP cost $300,000 over a three-year period to deliver the "hands off" package.

I know from personal experience, having implemented the Far West Laboratory minicourse in my school system, that it also cost tremendous amounts of additional money to implement and engineer into schools. Of what use is such an expensively developed program, however desirable — and I wish all "hands off" packages could be developed as vigorously and carefully as ISTP — if the implementation and engineering money is not available to LEA's? I'm not saying that the "engineering phase" is a legitimate R&D cost, but it is a cost to be reckoned with and should have funds allocated to it — perhaps dissemination or operating funds.

The application of a general rubric to career education as a reform movement (pp. 22-26) is brilliantly done. This section is not only helpful to the understanding of career education, but also a very helpful rubric in looking at many innovations. I must further add that looking at career education in juxtaposition to PSSC, IGE, and other significant concepts, helps one to see it for what it really isn't — a significant reform movement.

The section on alternative strategies is equally brilliantly done. The journey through the model-specific, site-specific, position-specific, and generic approaches is logically handled. As each alternative is described and discarded for very logical reasons, one coasts along with the writer to the obvious logical conclusion. I have no additional arguments to propose for any of these alternatives; they have been covered quite thoroughly. I also feel that the merits and demerits of each alternative have been honestly presented.

I can't agree more heartily with the conclusion of page 33: take the straightforward step of earmarking more program operation funds for training activities.

I further agree with the Personal Recommendations. It is time to assess the claims of the movement. The R&D effort should be applied to vigorous evaluation coupled to systematic development of staff training in a few promising sites.

It's also time to face squarely the issue of categorical funding which leads to categorical thinking and results in fractured education at the local school site. Let us latch onto a viable reform concept, whether it be humane education or individualization of instruction and fund R&D strategies for staff development generically rather than program by program. Let us also provide enough operating funds for any program implementation to enable local school districts to bring teachers together for staff development activities, including implementation of "thoroughly tested and validated alternatives."

If career education is to *permeate* the curriculum; if family life and sex education is to *permeate* the curriculum; if drug education is to *permeate* the curriculum; if basic skills are to *permeate* the curriculum; perhaps we need *generic* staff development in permeating the curriculum and individualizing instruction.

The best career education at the elementary level is a solid, balanced curriculum which ensures a broad base of knowledge in all disciplines, and basic skill mastery in reading. The concomitant values, attitudes, orientation to the world of work and all other worlds in appropriate balance and relationship should be a matter of local resolution, not Federal policy, implemented by earmarked funding. NIE should not become the couturier presenting the annual collection of the "emperor's new clothes."

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

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The most disturbing feature of the Boyan report is nothing that the author said or left unsaid, but rather the paucity of empirical data which were available to him on in-service training for career education. For a relative neophyte to this literature, the existence of gross normative survey data on the number of programs and program participants was unsurprising. But I found appalling the lack of information (1) documenting and evaluating operating training programs; (2) assessing requisite teacher behavior in career education programs and classrooms and required behavior of other educational personnel; and (3) describing competing extant instructional packages for use in training programs for career education. The work that has been done to date demonstrates a quantitative need for staff development in career education and then leaves the writer adrift — from that point on the discussion is rooted in little or no empirical data.

Points of Emphasis

This is a useful, thoughtful paper for anyone concerned about national level planning for R&D needs and priorities for in-service staff development for career education. To avoid a common problem in paper commentaries, i.e., focusing on points of disagreement or other ground that could have been covered, let me turn first to a number of points of concurrence with the author which are worth re-emphasis:

° The paper distinguished between training as a tool for diffusing career education and training designed to improve the performance of educational personnel in career education programs. Although multiple goals obviously can be achieved in training programs, in general this is a distinction that makes a difference. The distinction is especially relevant in considering R&D to support training programs since in the former instance the R&D substantive thrust would be on diffusion research rather than training research.

° The emphasis on role-specific training alternatives is worth reiteration. Training efforts associated with other curricular innovations have, in some instances, ignored training for educational personnel in non-classroom teaching positions and, in others, provided only diffusion-oriented training for non-teachers.

° The characteristics of systematic R&D work on training programs are well documented and helpful to the planner. They illustrate vividly the opportunity costs in time and money that are an essential part of any development effort designed to improve training.

° The special complexity of career education as a training focus is well taken. The structural character of the innovation demands role-specific training for the administrator. The mix of substantive, structural, and methodological emphases imposes an added burden of behavioral change on the shoulders of the teacher as an individual and teachers as a faculty in a school or school system.

° The specification of what might be thought of as generic alternatives available for consideration to the planner concerned with R&D activities in any training field is useful as a set of categories to consider in assessing alternatives. These are made more helpful by introducing the political and economic variables which might affect the success of an alternative if it were adopted.

Other Considerations

The Boyan paper raised a number of issues which this reviewer felt were explicated incompletely or needed further consideration and discussion, to wit:

° Among the definitions offered by the author, a critical definition, i.e., "R&D pertinent to staff training," was posited narrowly. If the reader sees R&D on staff training as (1) adhering to the paradigm offered in Chapter II (page 12) and (2) proceeding in the manner described in the case study in Chapter III (pages 18-20), he/she is likely to concur with the author's somewhat pessimistic assessment of the alternatives posed in Chapter V. But this reconstructed logic "...of 'modern' development work in education" (page 18) is just that — a reconstructed logic which idealizes the actual processes pursued in development. This was illustrated by Boyan in his reference to the experience of the University Council for Educational Administration in development activity for training educational administrators. In fact, UCEA's efforts have been piecemeal; sporadic, but effective. The initial simulation tool packaged by UCEA was a serendipitous product of a research study. UCEA case studies on administration were collected from time-to-time and were made available to trainers as they were completed. Text materials that are now considered a part of UCEA's instructional output were frequently generated from conference papers or the interests of a single professor. *In toto*, over time, however, the UCEA effort succeeded in upgrading training in that field precisely because the organization practiced the art of the feasible and rejected criteria of necessity and sufficiency being imposed *a priori* on either the scope of the content interest to be pursued and/or the precision of the behavioral target for the learner. This orientation could prove equally useful to those interested in upgrading training in career education.

° The central problem confronted by the author of this paper, i.e., the paucity of qualitative data on training in career education, suggests another reason for abandoning the narrow definition of R&D pertinent to staff training. Documentation of current training programs is apparently missing and would be of considerable value in specifying next steps in an R&D effort. For example, the AIR report cited by Boyan noted that seventy-two career education projects were assessed as part of the 1974 mini-conference series. However, the descriptive data reported out were so gross as to offer no guidance for next steps; e.g., training has been done by project staff and outside consultants, half the trainees received compensation, etc. The same problem arose in attempting to use the reports on training activities published by the Office of Career Education. Chapter 6 in the AIR report cited a variety of available training materials but again cross-product evaluation was missing. One of the early targets for R&D on staff training in career education should be documentation and evaluation of activities already underway in the field. This option is lost in the paper, although reflected in the case study, because of the particularized definition imposed by the paper on R&D.

° The long-range significance of investing in R&D activity to improve pre-service preparation programs in career education in schools of education is under-emphasized in the paper. The most effective way to simultaneously institutionalize the spread of an educational innovation and to improve personnel performance is to invest in programs closest to the point of effective action, i.e., to take advantage of the way in which a field has organized or institutionalized itself. LEAs and SEAs are logical targets for in-service training support but schools of education in which a million students are still preparing themselves to enter teaching (and where, coincidentally, most of the in-service education is still being conducted) are too often overlooked as an integral component of the institutionalized form of education in this country. They are close to the point of effective action precisely because they touch each teacher in his/her formative socialization phase. Over the long run, investments in these agencies for R&D on career education training has both political, practical, and scientific utility.

° The several alternative approaches cited in Chapter V can easily be considered complementary rather than competitive alternatives. The generic approach appears to have limited utility only if one insists on imposing the Boyan paradigm on it before the fact. Most professional training would fall by the wayside if this were done. The site-specific approach falls apart only if one considers it necessary to cover all sites with the approach. If it were, in contrast, considered to be a method to foster at-site improvement with some fallout for contiguous schools (a worthy and supportable diffusion objective) and some sub-products with likely generalizable utility, it becomes feasible again. The model-specific and position-specific approaches fit certain development agencies especially well — in the former case the labs and centers and in the latter case such organizations as UCEA, cited by Boyan — and each would contribute to the growth over time of improved products. The summary point being pressed is simply that all of these approaches, supplemented by activity in field-based documentation and evaluation of career education training, could be considered as a complementary and effective R&D program.

° The author warned the reader of his "doubting Thomas" attitude toward career education early in the paper. The attitude did affect the presentation in two ways. First, each time a training-diffusion objective emerged, the author shied away from the diffusion objective. For a reader who does not share the author's reservations, this means that he/she should re-insert that possibility where it is appropriate. Second, the assessments of the four alternatives in Chapter V seemed unnecessarily negative and this may have been a consequence of the "Personal Recommendation" which was to follow (page 34).

Summary Note

This commentator would assume (1) the need for more and improved training programs for staff development in career education; and (2) the efficacy and feasibility of R&D as a tool to support that end. The Boyan paper suggested to me that the most effective strategy would be a diverse set of tactics that would:

a. Document and evaluate extant materials and programs.

b. Generate the development of materials and programs ranging from the smallest modules to the most complete programs.

c. Stimulate the interest of R&D personnel and practitioners in diverse settings, LEAs, SEAs, labs and centers, schools of education.

d. Bridge diverse positions in education and the distinction between pre-service and in-service training.

The obvious initial criticism of this approach is its cost — the second, its lack of systematization and rigor. On the first point, the only response is to note that one begins with the possible. The long-range effect of small investments that involve the interested segments of the educationist community broadly will be greater than intensive investments in limited sites. On the second point, the only defense is to note that typically improvements are generated relatively unsystematically. Working on a broad front will generate breakthroughs — sometimes in unlikely locations at unexpected times.

In more specific terms, then, this author suggests that NIE should consider a contract and grant program for R&D on training in career education which would encompass:

° Support for individuals and groups interested in and competent to document and evaluate operating training programs and extant instructional materials and methods in field sites.

° Development grants to individuals and agencies interested in and competent to produce materials and/or methods which can be used in training programs in career education. These grants should be open to trainers working in training agencies as well as developers located in more conventional development settings. Each grant should, of course, carry requirements for field-testing and evaluation. The types of development supported should be intentionally diverse covering pre-service and in-service programs, narrow and comprehensive training products and interventions, and agencies of all types.

° If greater coordination of the total effort seems desirable, an existing lab or center with interest in the content area, and/or an independent contractor, might be identified to serve on a national basis in planning priorities for R&D in the area and conducting cross-project and program evaluation research.

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

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Overall my reaction to Dr. Boyan's paper is one of high commendation. To begin with, no one had to convince me that staff training is a critical issue which must be faced immediately if the course of career education is to be ultimately successful and of any lasting value. Staff training in career education has been and is now erratic, unsubstantiated, and in some cases nonexistent. There are some very good staff training programs developed, or at least in the development process, but they are known to only a few; and in some cases, even if their existence is known to those who need help, they cannot take advantage of them due to a lack of time. The career education movement has spread so fast and with so much emphasis that the practicing teacher involved has very little time in her schedule for the training and everything else she is asked to do.

I have worked with two different career education projects. There was some staff development and training in the first one, but it was confusing since the trainers obviously had difficulty deciding how to train (they also lacked experience). With the second project, there was simply no time alloted to train the staff. Aside from a brief orientation, we had to just "jump right in." Therefore, when I say that in some cases staff training is non-existent, I mean that many teachers are given the assignment and the materials, but no time for the training.

In-service training is important and necessary, but so is pre-service training. After actively participating in numerous career education workshops, after viewing several models already in operation, after designing my own program, and even after teaching two separate programs, I still am aware of my inadequacies. And I too, like so many others, am now turning to the schools of education for assistance. But finding a strong and reputable program in career education is not that easy. Obviously, both in-service and pre-service programs are necessary in order to effectively train and continue to train staff members. Thus, involvement and commitment on all educational levels is needed.

With my support of the need for more and better staff training in career education established, I will now respond to several specific statements and ideas presented in Dr. Boyan's paper. First of all, I wholeheartedly agree with the statement that, "staff training is a crucial means to a desired end" (page 18). Boyan supports his statement by citing G.E. Baker: "The key to success in any curriculum innovation ultimately rests upon the delivery system employed for that curriculum" (page 10). Heretofore, much time, effort, and money have been channelled into developing program designs, instructional materials, and various curriculum instruments — some of which are good or even outstanding; some of which are poor. However, a poor presentation using the best materials is often more ineffective and detrimental than a good presentation using the poorest of materials. Just as much time and effort that is spent in developing and producing materials should be spent teaching the staff how to effectively use these materials or the time and effort has been wasted.

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[1] Now at Ohio State University.

Dr. Boyan points out that if significant funds are allocated to R&D, specifically for systematized development of staff training programs, it will be quite costly in time and money, and should therefore be concentrated on a small scale for the sake of quality, not quantity. Many would argue that to be economically feasible an educational program of this nature should reach as many as possible as soon as possible. Yet, the real issue lies in the fact that a careful organized development on a small scale, is less costly in the long run due to its proven effectiveness. A large scale disaster is difficult and sometimes impossible to salvage or to justify.

But allocating funds just to those selected model projects would create a very sensitive problem. Dr. Boyan has already mentioned that many local educational agencies who have begun work on projects and who have come a considerable distance may not want to "turn back the clock," but ignoring their efforts seems wasteful. They should receive some support and help also. You cannot ask them to disregard all the work they have already done nor would you want to, for many of these projects are just as good as the model projects. Some consideration must be given to organizing and coordinating what is already happening and to discouraging any new and independent projects from developing while research is busy refining and reorganizing. There is a great need to solicit the energy and ability of all avid supporters and protagonists to sell a different idea. For five years they have impressively sold an idea without the proper directions and guarantee. Can they now sell the idea of refinement and completion of existing programs before the movement expands any farther?

A much more complex problem will be the enormous task of reorienting a total school staff. The changes in content, structure, and methodology are drastic to most, and sometimes incur hostile resistance. To walk into a school system and expect 100% participation and commitment is unrealistic. Yet these innovations call for 100% participation and the personal demands (because career education is so broad and complex) will call for just as much commitment. This factor will necessitate very careful selection of any model sites used for staff training development or otherwise the uncooperative and uncommitted factions will make evaluation difficult.

Dr. Boyan may not be an advocate of the career education movement, but I find his recommendation unbiased and insightful. His proposal to concentrate on already existing and promising programs is only logical. His suggestion to combine the methods of approach is the only way possible to serve the various needs. And finally, his specification for base-line data collection is not only necessary, but will eventually be the security and proof of its success. In addition to his recommendations, I would like to see the pre-service programs included in the process and also some funds set aside to help the already existing local and independent projects.

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

John F. Leeke
National Education Association

My initial reaction to the task given Dr. Boyan is that there is a larger question which needs answering — Should career education be an education reform movement? It is difficult for any individual to adequately assess how a particular approach can benefit a situation when the individual seriously questions the merits of the topic. Dr. Boyan clearly stated that he is not a believer in career education as a reform movement of great merit or lasting value. This has to be kept in mind as you move through his analysis.

I have chosen to react to each of the four questions he attempts to answer:

I. Is there demonstrable need for staff development activities for career education?

II. What characteristics of staff development particularly qualify for R&D consideration?

III. What characteristics of R&D effort are particularly salient for or germane to the development of staff development programs?

IV. What central characteristics of career education as reform movement should influence decisions about R&D for staff development?

Dr. Boyan's answer to the first question seems to be hedging. It appears from all the items cited that there is definitely a need for staff development activities in career education. To say, "It all depends...." begs the question. It would appear obvious that additional analyses are necessary for systematic R&D work. It is here that Dr. Boyan's bias toward career education begins to surface. To me, any educational effort that calls for some change in the manner of delivering service to educational clients is dependent on the educational practitioner's, (teacher, counselor, administrator) skills, knowledge, and attitude. Staff development, staff training, in-service education — whatever choice of terms one is comfortable with — must definitely be a major factor in any effort. It seems well documented that one of the major factors for failure of many changes in the schools has been the lack of or inadequate preparation given to the actual implementers of educational change.

Dr. Boyan does identify issues which are not only worthy of R&D consideration, but essential to some basic questions relative to delivering education. I refer specifically to his discussion on the relationship between training outcomes established for one group with the behavior of a second group. He further indicates that there is not yet sufficiently precise and clear statements of desired staff behaviors which can properly serve as the basis for the systematic and rigorous development of one (or more) staff training program(s) to serve career education as an educational reform. I, therefore, say what better place to begin. I further agree with his statement that a total development effort is required. I also support his comments concerning role-specific training. The comment concerning the need to consider the training requirements of those staff members who will lead or conduct the staff training programs must not be overlooked or underestimated in terms of its importance. The area probably most neglected over the years has been providing in-service for the in-servicers.

Dr. Boyan probably, like the rest of us, was unable to discuss the issue of R&D strategies for staff development for career education without giving some attention to career education as a reform movement. Even though he indicated that was not the focus, it nevertheless influences what is said in terms of R&D direction. I felt that his presentation dealing with "Specific Features of Career Education" highlighted some very definite implications for staff training. I would go further and indicate that I completely concur with this comment: "If any unit less than the entire school is considered as the pertinent staff involvement base, there is little hope of securing and maintaining programs for students in which career education is the central focus across the grades as well as in individual classrooms." If career education is a desirable goal of education, then it must be accorded status as an educational goal. As much as I would like to enter into a discussion regarding the meaning and place of career education, I will do as Dr. Boyan and refrain, other than the few comments above.

I tend to agree with Dr. Boyan's conclusion that the choice of whether the R&D alternative represents the wisest and best policy depends on what the policy makers wish to achieve. However, I don't think I would go so far as to say I would readily dismiss R&D investments in staff training if the policy decision was to encourage the spread of career education. R&D could be a viable strategy to convince the non-believers. I would suggest that whichever direction the policy makers wish to take concerning career education, there must be staff development. It is essential that there be R&D efforts, and that there be a straight-forward step earmarking significantly more program operation funds for training activities. I further agree with Dr. Boyan's personal recommendation and suggested approach.

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

Carole O'Keefe
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It is both forthright and disarming to have Dr. Boyan declare early in his paper that he is "not a believer in career education as a reform movement of great merit or lasting value." His next statement, that he believes he can segregate his attitude toward career education from a systematic analysis of R&D strategies, is equally disarming and should have done much to allay my fears about the consequences of his previous declaration. It did not. Dr. Boyan's attitude informs his analysis. It is not that he fails to be objective, but that he is objective with a vengeance. The central concern of the paper, whether or not systematic R&D can contribute materially to solving the problem of staff development, changes subtly as Dr. Boyan's analysis unfolds. The problem of staff development becomes the problem of the validity and evaluation of career education. I cannot help feeling that had Dr. Boyan not impaled himself on this double-edged sword, his recommendations would have treated career education more kindly.

For example, in his discussion of the results of the AIR survey, Dr. Boyan questions whether the trends reported provide evidence of real need for additional staff training for career education. The answer to this question, he tells us, "is a function of the level of aspiration held for the health and prosperity of the career education movement." This is certainly true if career education is seen as a movement of no great merit or lasting value. It is also true if the staff development activities listed in the AIR survey are only tallied, as opposed to being examined for quality. It may even be true if you conclude that the teachers involved in staff training activities have indeed been previously introduced to the philosophy, concepts, and goals of career education — a conclusion not borne out by observing and conversing with many teachers. But Dr. Boyan has set us up! He forces us, through a perfectly logical series of steps, to admit that 20% involvement is an "unusually high and eminently satisfactory" level for any reform movement. Our only alternative to this position is to line up with the "protagonists and advocates" of career education who would like to see 100% involvement of student and teacher population in 100% of the school districts. A reader, not intimidated by Dr. Boyan's own lack of enthusiasm for career education, is tempted to reply that since 100% of the teachers and students in 100% of the school districts are either involved in, or preparing for, careers, it may not be absurd to have more than 20% of them involved in career education.

The example above is only the most obvious illustration of how attitude affects analysis. Throughout the paper, Dr. Boyan's analysis is lucid and careful. But it is also narrow. The paradigm constructed to show staff development is an excellent representation of how a training program works. When applied to career education, however, it seems that no sufficient data base is available for the specification of desired behaviors. While the learning activities reported by AIR may not serve this purpose, as Dr. Boyan says they are neither precise nor specific enough, is it beyond the scope of R&D effort to offer assistance in specifying and making precise the clues and leads provided by AIR? Certainly, this makes the development of a training program more difficult, more complicated, and much more expensive than the program developed by Dr. Boyan for supervising teachers. How much money should be invested in an effort on behalf of staff training for career education is, however, a quite different question from whether or not career education is worth investing in. The point is that it probably is possible to validate and specify desirable behaviors for career education. Validated instruments, not within the scope of Dr. Boyan's paper, exist. The comparison between the task facing developers of a career education training program and the achievement possible in a traditional area such as Instructional Supervision implies that since similar results may not be obtainable even if $300,000 is spent, the task should not be attempted at all.

Dr. Boyan has made several important contributions in explaining clearly a rigorous R&D mode and how it impacts on possible models for staff training for career education. The kind of information he provides is valuable and is not readily available elsewhere to planners. Each time, however, that he introduces a model, describing its effective and attractive features, the interested reader says, "Yes, this will help!" Wrong. Because as soon as Dr. Boyan introduces the implementation of the models in relation to career education, all the clear and apparent advantages turn into liabilities. The Generic Approach? No. Not until career education gets its target behaviors all precisely defined and shows there is a common body of knowledge and skill to be dealt with. The Site-Specific Approach? No, again. Here, career education looks really silly. R&D money certainly can't be expected to finance the development of training programs in each of the 16,000 school districts. (It is not clear why fewer sites cannot be chosen without invalidating the effort.) A Model-Specific Approach? Of course not. Educators are so far along in implementing career education that they will resist R&D developers. (This has some truth although the real objection is Dr. Boyan's tie-in of the model-specific approach with the delay of further investments in demonstrations and installations.) Position-Specific Approach? Still not right. Too many R&D groups would have to be coordinated to insure a general framework for a model. And even if that framework could be developed, the Federal powers might leave themselves open to the charge of having determined some single, preferred model of career education. (After all, it seems, no model is preferable to one.)

Dr. Boyan does finally propose a model which survives his analysis and he gives a specific recommendation; at the same time he corners that sly, elusive phenomenon of career education. A Site-Specific Approach model may be developed, but at the same time career education will be required to prove its claims, perform, pass the test.

A curious contrast is provided by thinking back to educators' responses when they first learned that Sputnik had soared off into space. Curriculum changes, funded by R&D and all kinds of other money, blossomed instantly. No credentials were required, of course, for Physics, Chemistry, and Math. It was obvious that we had to catch up.

Catching up to the needs of our own economic system with its attendant demands on our educational system does not seem to have the same kind of immediacy. Dealing with the world of working people (where students eventually will live) seems to be an uncomfortable experience for many educators. Career education is not, after all, a "discipline." It is always so messy to deal with reality in the classroom! Dr. Boyan's paper reveals much of that discomfort and shows how ill prepared the nicely constructed world of paradigms, sets, and models is to accommodate what is happening. And, as the AIR survey shows, career education is happening — in a significant way — in 57% of the country's school districts. Right now, it is happening in a somewhat haphazard way. Bizarre things are done in the name of career education. But whether educationally sound or educationally eccentric practices are being implemented, the children are being affected. R&D dollars are essential to verify the goals of career education and to create a flexible, practical framework for "hands on" and "hands off" models for in-service training. While Dr. Boyan's analysis is clearly logical, clearly intelligent, precise and informative, it is also clearly obstructionist. Paradigms, sets, models belong in the world of political and academic rationalizations. Career education belongs in the real world. Let us hope the two will meet.

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

William E. Weisgerber
Director of Career Education
Michigan Department of Education

Introduction

The Commission to explore the potential interface between in-service staff development and career education is one which deserves serious examination and should include an extensive search of the literature for any relevant study or activity. The study of staff development, whether for career education or other content areas, has been unorganized and inconclusive as it relates to the effect of teacher skills on the performance of students. The identification of a set of teacher competencies which are germane to desired student outcomes has not been the object of a precise study or research activity.

Career education, with all of its inherent problems of cross discipline coordination and inter-grade articulation, may well be the impetus for such a study. It would result in a serious examination of the learning process as being more closely aligned as a child-centered process and less as a subject matter centered activity.

Overview of the Paper

The paper is divided into five chapters, ranging from evidence of need to alternative strategies for R&D for staff training. The data base from which the conclusions are drawn do not reference all of the literature. No mention is made of the ERIC Center for Career Education, the National Center for Career Education, the NIE Product catalogs, the compiled writings of the Education Commission of the State, or various state professional development models. All of the above-mentioned have incorporated elements of career education staff development which have implications for R&D effort.

The AIR study was never designed to be a detailed piece dealing with staff development. Further, it was based on general learning outcomes and definitions emanated from the federal level and not on the more specific behavioral statements often found at the local educational agency. The reference to the McKinney study did not reflect several documents which were cited in the study and which dealt with the career education competencies of elementary, middle, secondary teacher/counselors, and administrators. Recognition should be made that this paper was well written on an extremely short timeline.

The thesis which permeated the second chapter presumed that either learner or trainee behaviors were unspecified for career education. Several states have these outcomes and they are included in the materials at the ERIC center.

Figure 1, the pictorial representation of a general paradigm of staff development, was helpful. I would suggest that two steps be added. Set I or affecting behaviors must be validated, related to some documented need. Therefore, some type of formal needs assessment, goal development and competence determination must be included in the total process. I totally agree that a staff training program must be related to student outcomes and be competency based. I see no evidence that career education has any less tendency to be competency based than other content areas in education.

The question in the second paragraph of page 14 is a valid one. The answer is not directly given. The implications are not based on actual practice in 1976.

Chapter III reverses the relationships of staff training and systematic R&D. Still, and this reader agrees, the case is made for "precise and clear specification of desired trainee behaviors." Further, the author makes the point on page 21, first paragraph, that little R&D effort has been applied to "staff development" for career education. Even though it is "demonstrated conclusively that staff training lends itself readily and appropriately to the invocation and application of a rigorous R&D mode."

The "hands off" package described on page 20 is quite similar to materials developed and utilized at the Ohio State Center for Vocational Education, and in Georgia, Oregon, and Michigan.

Chapter IV deals with the salient characteristics of career education. The complexity of the concept is well illustrated. The pictorial representation of a classification scheme for educational innovation is appropriate. However, I do not agree that career education does not require methodology change. Experiential learning is far different from the didactic methodology utilized in many classrooms.

In Michigan, both labor and business agree that career education is more than the workplace. The presumption on page 24 is that in career education the workplace is the stage for all learning. Prior to making such a statement, the author should investigate state and local activities. The AIR report is not an adequate investigation due to its general definitions and lack of a summative design for data collection.

Structural change as addressed on page 25 is described as having a similarity to the on-going cooperative work study program. However, the career education movement has a totally different objective for the use of community resources than does vocational education.

The method and delivery section on page 25 concludes that career education advocates are concerned primarily with what teachers teach and not how they teach. In Michigan, efforts have been initiated to determine teacher competencies. I believe that this effort has been replicated in other local and state agencies. There was no evidence in the paper to support the former conclusion.

The articulation goals, vertical and horizontal, mentioned on page 26 are indicators of the career education movement. I would ask, even if these goals are ambitious and lofty, is this reason to dismiss the career education concept?

On page 27, Chapter V, R&D for Staff Training, the discussion of alternative strategies again points out that desired trainee behaviors are not yet known. While their completeness may be questioned, there are available lists which need validation, an acceptable R&D task.

In Michigan, an effort has been in effect for three years. It is a consortium of trainers. This teacher-education-sponsored activity was documented in the Briggs Report. Other similar efforts are in existence in Oregon and Georgia.

The fifth paragraph on page 27 concludes that there are two reasons for staff development. They are (1) combat the "non-believer" and (2) help "believers" perform more effectively. First, I do not support the conclusions, and secondly I feel the choice of terms depicts a strong bias against career education. This interesting display is repeated throughout the document and puts in serious doubt the objectivity of the writer.

The conclusion concerning the need for evaluation on page 28 is quite interesting. The charge of this investigation was to not examine this aspect of the career education movement. I agree that evaluation is needed, but would equally emphasize its need in all other educational programs.

The discussion on pages 28-33 is valuable. The various models — model-specific, site-specific, and generic — are a good classification system. None, however, exist totally in isolation. Certain combinations can provide common delivery systems and still reflect unique local needs. The hypothesis is that funding site-specific models would result in an annual expenditure of over 1.6 billion dollars is hardly applicable since this model would not exist in isolation.

Recommendations

The paper deals with two recommendations, one being that no staff development R&D should proceed until a "well designed and carefully executed evaluation take place." Later, however, the possibility of jointly conducting a longitudinal evaluation and designing/implementing a staff training program was raised.

The author rightly points out that time is not an abundant resource. We cannot approach this innovation in a scholarly fashion and, in detail, evaluate each facet. Schools are implementing and need proven staff development programs. Therefore, alternatives must be selected that combine evaluation and R&D staff development considerations.

There are several sites where career eduation staff development has taken place. One or more of these should be analyzed and considered for (1) longitudinal evaluation of the career education concept, and (2) development of an R&D design for staff development.

RESPONSE TO
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

Robert A. Withey
Commissioner of Education
State of Vermont

It is my understanding that the sponsor's commission and intention was to determine what kind of significant contribution systematic R&D work can make to improve staff development in behalf of career education. I believe, however, that it is necessary to define or at least describe what is meant by career education. A blanket statement of support or disapproval would seem to be meaningless without such an exercise.

While the following statements may not receive unanimous approval by the many persons addressing career education, I believe that they should at least be reviewed.

1. Career education is designed for all students.
2. Career education should bridge the gap between schooling and the world of work.
3. Career education includes community involvement — parents, business, industry, labor, professions, government, etc.
4. Career education recognizes the richness of resources in the community and utilizes them.
5. Career education is an instructional strategy requiring organizational and instructional changes. It recognizes that learning occurs in a variety of settings; that respect is due all types of work; and that many biases should be eliminated.
6. Career education reinforces academic education, including the basic skills.
7. Career education recognizes critical decision points in a person's life and the need to develop decision-making skills.
8. Career education is concerned with the development of (a) marketable skill(s) and not a bondage to a narrow career goal.
9. Career education is concerned with keeping pace with the post-industrial occupational society and attempting to project, with some degree of accuracy, the future.
10. Career education attempts to foster self-understanding — a knowledge of personal strengths, weaknesses, attitudes, values, goals, and plans.
11. Career education recognizes the individual must be equipped to face, adjust, deflect, accelerate, and modify change, rather than helplessly confronting "future shock." Further, it acknowledges that individuals change occupations or jobs three to five time during their lives.

12. Career education applies the most accurate, available information to rational decisions.
13. Career education promotes economic awareness, and productive consumerism.
14. Career education is found in all subjects (instructional areas) and not a separate subject or discipline.
15. Career education is in all levels of education, including elementary and secondary schools, university, trade schools, adult education and whatever learning environments exist.
16. Career education includes all work — both paid and unpaid.
17. Career education encourages evaluation, from the individual to the learning environment (including activities, staff, community, economy, etc.). The ultimate worth of any evaluation lies in the benefits it provides for the learners.
18. Career education requires a team effort, including students, teachers, support personnel, administrators, school boards, parents, and the community. All teachers need to be committed and involved with implementing career education within their instructional area.
19. Career education assists the learner in developing competencies and acquiring skills needed at every successive career stage.
20. Career education is based on the belief that both education and the work that education prepares us for can be meaningful, satisfying, and rewarding to our lives.

Unfortunately, Dr. Boyan has flavored this paper with his personal beliefs, lack of support for career education, and a need to defend the lack of acceptance (or participation) by institutions of higher education, without clearly defining what is career education, or what he perceives its meaning and scope.*

By revealing his personal biases and not defining career education, I believe that Dr. Boyan has reduced the effectiveness of his paper. This reader has attempted to follow Dr. Boyan's suggestion; namely — "I urge the reader to pay particular attention to the sponsor's commission and intention."

The Changing Educational Climate

That education lies at the very heart of democracy has been an enduring belief of Americans. The absence until recently of sharp challenge to the system of education served also to produce a sense of quiet satisfaction that things in the educational establishment were going well.

In recent years, however, a variety of factors have converged to raise questions about what goes on in our schools and just how effective they really are. Among these have been escalating costs due to inflation and energy costs, decline in enrollments, increased activity in employer-employee bargaining, crime in schools, integration/segregation, lack of pupil interest, lack of parent involvement, lack of career education, and a decrease in level of state's participation in aid to local school districts has placed an increasingly heavy load on the backs of already burdened taxpayers. A cry about relevance of curriculum is raised against the schools by students and parents. Concerned citizens and scholars from sociology, psychology, economics, health, and other professions are seriously questioning the purposes, methods and accomplishments of the schools in their roles as gatekeepers to success in our society.

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* See Appendix for specific references.

While acknowledging the very complex interweaving of factors that produce learning in children, parents nevertheless wonder why schools cannot teach all children the basic skills of reading and numbers, enforce stricter discipline, meet individual student needs, improve parent/school relations, emphasize moral development and emphasize career education.*

Career Education

The demand for more emphasis on career education continues to be strongly voiced throughout the nation. In almost every study, the public has made known its belief that public school education should train graduates for jobs.

There is obviously confusion in the public's thinking about what constitutes career education and the kind of skills needed in today's society. What does emerge from the various surveys that have covered this point is that the public believes the schools should prepare every student to take some kind of job after graduation if he or she wants to end schooling at this stage of his or her life.

This first question was asked of all respondents in the Gallup Poll: Do you think that the school curriculum should give more emphasis, or less emphasis, to careers and career preparation in high school?

Because the public sees many unemployed and unskilled young people, it is quite natural and logical to reach the conclusion that the schools they attended do not give enough attention to job training. What is likely to be overlooked is the need today for persons with language and mathematical skills as well as mechanical skills. In the current survey, 80% say more emphasis should be given to careers in high school.

A second question asked if more information about careers should be given in the elementary schools. Although the majority is small, the number who say this should be done is greater than the number who say this is not necessary.*

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* 8th Annual Gallup Poll of the Public's Attitudes Toward the Public Schools

	National Totals %	No. Children In Schools %	Public School Parents %	Parochial School Parents %
More emphasis	80	80	80	84
Less emphasis	5	4	5	7
About the same as now	11	12	11	8
Don't know/no answer	4	4	4	1

. The second question was: Do you think the elementary school curriculum should, or should not, include information about jobs and careers?

	National Totals %	No. Children In Schools %	Public School Parents %	Parochial School Parents %
Should	52	52	53	47
Should not	39	38	38	48
Don't know/no answer	9	10	9	5

Education is no longer seen as the province of educators alone. The windows of our schools have been opened and the eyes of many are focused sharply on what's going on inside, how it relates to what's going on outside, and whether or not they are getting the best educational value. In the absence of such knowledge coupled with rising costs, taxpayers are increasingly resorting to the vote as a way open to express dissatisfaction.

This is not to say that our citizens are looking for ways to reduce their investments in education. Nor would they be adverse to increasing them if the needs for what the schools are doing were affirmed and if they had confidence that their investments would make a favorable difference in the lives of their children.

Rather than going around in circles chasing each other (educator and educator), we had better recognize that:

1. Our citizens want more emphasis on career education.
2. Many educators lack first-hand training and experience in career education and the world of work beyond education.
3. We must at least attempt to come to some general agreement as to the definition of career education (its goals and objectives).
4. Pre-service training is essential.
5. In-service training is essential.

6. Training programs should not be limited to teachers or other educators.
7. Our citizens want improved relationships with our schools and career education is one available avenue.
8. Many states are now in the process of developing or have developed state plans for career education, including staff training at the local level. Consideration should be given to R&D investments to improve this anticipated staff training in a demonstrable fashion, using several states which represent a variety of approaches.
9. Career education is very broad, involves many roles, is (or should be) integrated into the entire curriculum and has grown rapidly in the last few years. But R&D should not back away because the opportunity for involvement was not available at the start. Many changes in education and society do not wait to start until a nice, neat and even desirable research and development plan has been formulated. It would be undesirable for the R&D communities to divorce themselves from providing helpful information and insight into career education staff training for Federal, state, and local educators.
10. Educators have known for decades that evaluation was a sine qua non of educational progress, yet beyond the level of rhetoric only minor resources have been devoted to it. Evidence as to the effectiveness of projects, programs, curricula, or other activities of the schools is at best sketchy. The quality of a given school, school system, or state system is difficult to determine. We know that the schools are doing something worthwhile, that the situation is not as bleak as many claim, yet we do not know how much better it could be, nor how the schools could educate better the spectrum of students now in their ward. Seldom is there an effective effort to measure the relationship between what an educator wants to accomplish and what the student does accomplish. I have no quarrel with providing for the evaluation of training programs or career education's objectives.

Past evaluation of schools or school districts have been based largely on what is referred to as the "input" side of education. These have revolved around such variables as resources applied, curricula, equipment, student-teacher ratios, teacher education levels, the humaneness of the environment, number of books in the library, pedagogical strategies, physical plant features and the like. Inputs continue to be important matters affecting the outcome of learning. It must be further recognized that not all inputs to learning come from "formal" education or schooling. The outside world also contains powerful educational inputs.

Measure of the equality of a program or institution, however, must be made on the basis of its effects, or what is referred to as "outputs." Outputs are the ends to be achieved, derived always as a result of varying amounts and combinations of inputs. Outputs may be expressed as achievement in a particular subject or as a value of the district such as school holding power. Other examples might include, achieving functional literacy in enabling skills, attitudes toward citizen responsibility, positive feelings about one's self-worth, physical and mental health and the like. Whichever they may be, they should closely approximate the objectives set for the training programs or career education.

In conclusion, just as there are gaps between schooling and the world of work, Dr. Boyan's paper seems to support a position that would continue this gap and extend it to our citizens' concerns and the needs of our learners. I see no constructive suggestions in this paper to close these gaps!

APPENDIX TO WITHEY PAPER

Examples of Dr. Boyan's Beliefs, Lack of Support for Career Education and Lack of Acceptance (or Participation) by Institutions of Higher Education

Page	Quotation from Boyan Paper (Emphasis Added)
1	My statement will disappoint the reader who seeks analysis of the worth of Career Education *per se*.
1	The test of that assumption and of the myriad claims made in behalf of Career Education rests with other analysts, in other places, at other times.
1	I wish, however, to make clear *my own personal position* on Career Education. *I am not a believer in Career Education* as a reform movement of *great merit or lasting value*. I seriously doubt that Career Education will be the panacea which so many of its advocates proclaim and supporters believe.
3	...(3) a special study of 16 school districts *reputed* to offer exemplary career education programs;
4	...16 school districts selected for their *reputed* involvement in Career Education movement,...
8	...are laden respectively with approbation, threat and hostility.
8	...stands in distinctly noticeable contrast to the vitriolic diatribe against institutions of higher education contained in an earlier volume of which Hoyt was co-author.
9	...there appears to be more understanding of the problems faced by colleges and universities in adopting and implementing serious staff development activities than *most* Career Education spokespersons have exhibited.
10	footnote: ...undoubtedly contributed to reporting a volume of *purported* Career Education activity which is *spuriously* inflated.*
10	Clearly, these opposing trends have created a sense of *deep tension between protagonists of the movement and the professional schools*.

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* The three Vermont school districts included in the AIR Survey did not have career education programs.

Page	
10	The Career Education literature, including *now* the AIR Survey, makes clear that the aspiration level of protagonists and advocates is *unusually* high.
10	Statements favorable to the movement definitely *convey the impression* that the desired target of involvement is 100% of pupil and staff personnel in 100% of the nation's school districts.
11	...the 16 projects are *laced* with reference after reference to the need for *more* and better staff training.
11	Searchers of *other persuasion* will incline toward a *less* positive answer.
11	...depends upon additional analyses, not ideological stance.
13	...then Set II encompasses the behavior of people who work directly with or *on* pupils.
15	...districts which were known to have adopted career education in *aggressive* or concerted fashion.
15	There is no reasonable way in which all 105 goal statements can be used *in toto* or as they now stand for the development of a *single* training program.*
24	What is envisioned is *intensive* and *extensive penetration* of the entire school curriculum of emphasis on the world of work, both in respect to knowledge about the world and improvement of career decision making skills.
25	Structural change is not advanced by Career Education *enthusiasts*...
25	...ever-expanding *volumes* of *clients*.
26	...the *protagonists* and *advocates* of career education *unabashedly press* for and anticipate curriculums which mesh neatly from grade to grade...
26	...for advancing the *cause*...
27	If the former intention prevails, the emphasis can more properly be considered a *missionary* or *evangelical* intention for which a training strategy is less pertinent than a diffusion strategy.

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* Was a single training program the charge?

Page

27-28 Coupled with a training strategy adopted for the purpose of program improvement desirably would proceed a strategy which emphasizes systematic evaluation of whether the introduction of Career Education as an intervention actually yields the intended results or effects.

30 The generic approach appears to possess more potential for promoting the adoption and installation of staff training programs at the college and university level than for direct application and utility at the local school level.*

30 The total number of possible claimaints could be as many as 16,000 school districts.

31 The aggressiveness employed by the U.S. Office of Education and other protagonists in propagating Career Education...

32 Given the highly charged emotions and strong commitments which have developed within the Career Education community...

33 To be specific, if they wish to encourage the spread of Career Education, they can readily dismiss R&D investments in staff training and concentrate on affecting the will and desire of the non-believers and non-adopters in favor of the movement.

34 A Personal Recommendation. I will close with a recommendation for future R&D investment in Career Education which assumes that the wisest and best step at this time is to assess the claims made for the proposed reform.

34 I also suspect, however, that the current state of the movement has produced only a few situations which are well enough advanced to enable a well-designed and carefully executed evaluation to take place.

34 If sufficient evidence materializes to support the value of Career Education...

Specific Reaction

3 AIR also conducted a survey of 30-year-olds to determine their impressions of high school education:

What do 30-year-olds think of the high school education they got — was it a help, hindrance, or irrelevant factor in how they are getting along today?

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* What about State Departments of Education?

A study released by the American Institutes for Research in Palo Alto came up with some answers. High on the list of comments was that high schools failed to give them good career guidance. In addition, they do not today understand the relevance of some of the courses they took and wished there had been more that prepared them for real life.

The most important failure of high school was "the failure to assist them in developing goals and plans." The implication is that for most students schools have to do a better job finding their true interests and helping them plan their futures appropriately.

In case after case, the study found students who have attempted career and educational goals quite contrary to their natural abilities as revealed in the 1960 Project Talent tests.

About 65% of the 30-year-olds wished their educations had been more individualized. But their memories were not all bad. The interviewers found that students had the most favorable memories of teachers who made sure students worked hard and took genuine interest in individual students.

San Francisco Chronicle, January 19, 1976

4 The AIR Survey was a random sampling. Appendix A and earlier comments indicate, that in Vermont at least, no Career Education districts were reported by AIR.

4 Proportion of staff involved — some say that guidance personnel are catalytic agents of change. In addition, high school counselors are faced with student course selections, career choices, job placement, college acceptance, dropouts, etc.

4 The lower participation rate for teachers — importance of released time for training and curriculum development.

10 If local school districts want Career Education programs, but schools and colleges of education do not prepare teachers for Career Education, then how marketable will their graduates be?

10 Career Education movement — Throughout this paper, Career Education is referred to as an innovation, movement, complex innovation, cause, reform, program, reform movement, etc. Perhaps, a definition and description by Dr. Boyan would assist the reader in understanding his use of these words. Does his definition agree or disagree with "The Position Statement of the Council of Chief State School Officers on Career Education"?

15 Priorities — A limited study in Hartford, Vermont, also produced a lower priority for vocational education.

Page	
15	Why the "hang-up" on a single training program. The sponsor's commission did not suggest one training program.
18-20	Might be placed in an appendix, with reference to it on page 20.
21 1st para.	Does the last sentence conflict with the personal recommendation on page 60?
27	There is no mention of Career Education after the secondary level of education.
30	An example of extremism — "$1,600,000,000 per year" — a ridiculous "red herring."
31	Define "tested Career Education alternative."
34	Why not look at Career Education sites to see if they are achieving their stated objectives, rather than relying on the AIR random sample only?
34	Footnote — suggested "firm" doesn't list college, state departments of education, etc. One gets a subtle impression that a university or regional lab are the only vehicles competent to do R&D.

PART III

RESPONSE TO CRITIQUES
OF
"R&D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

RESPONSE TO CRITIQUES OF "R & D STRATEGIES FOR STAFF DEVELOPMENT FOR CAREER EDUCATION"

Norman J. Boyan

I have elected to respond to three major strands of criticism in the several critiques rather than treating each of the seven statements one by one. I have also framed my response primarily to keep attention on the issue of R&D strategies for staff training at the policy level. The three major strands of criticism which I have identified are: (1) the literature base consulted; (2) conception of R & D appropriate to staff training; (3) influence of my estimate of the worth of Career Education on my line of argument and my recommendation.

The Literature Base

Weisgerber attacks my position on the grounds that the literature base which I consulted was shallow and narrow. The essence of his charge, seconded by Withey, is that if I had made myself more familiar with the best examples of staff training activities in Career Education instead of depending almost exclusively on the AIR Survey, I would have come to a different conclusion about the state of the art and would have arrived at a different recommendation. More specifically, Weisgerber argues that familiarity with work at the Ohio State University Center for Vocational Education, at the University of Georgia, in Michigan, and in Oregon, would have influenced my analysis, my conclusions, and my recommendation.

My response to his criticism runs in two parallel directions. First is referral to the scope of work which I agreed to accept and second is commentary on the results of consulting at least some of the Ohio State work prior to preparation of my paper and of examining materials from Georgia and Oregon between the time of receiving the critiques in their written form and the drafting of my response.

The general statement of "Scope of Work" in my contract read as follows:

> The Contractor will write a report of "R & D needs and priorities for in-service Staff Development for Career Education." The report will be based on data from recent surveys by the American Institutes for Research and the American Association of Colleges for Teacher Education.

I judge that I successfully met the terms of the general statement.

However, I am prepared to admit that I achieved only a part of one of the more specific features of the Scope of Work; namely,

> Bring together existing data on what is already happening in in-service training for career education, its quantity, and insofar as possible, its quality. Result of this phase should be a better definition of the problem, if any.

I did rely heavily on the AIR Survey for my data base, supplemented by reading in the references I have cited and by extensive telephone conversations with the Ohio State group. I relied heavily on the AIR Report because I judged that the survey methodology supplemented by the sixteen case studies provided sufficient representativeness on which to base my interpretation of the state of the art. My confidence in the accuracy and pertinence of the results of the Ohio State consultation rested on previous experience with the quality of the work performed by the people there.

It is obvious that Weisgerber and Withey (and others, I suspect), believe that I should have gone further and deeper. I now wish to examine the effects on my presentation which might have resulted had I taken the opportunity to review before the fact two of the several exemplars cited by Weisgerber; specifically, the Georgia and Oregon materials, as they stood at the time I was engaged in preparing my analysis and arriving at my conclusions.*

Prior to examining the potential effect of a deeper and broader literature search, I would like to comment on Weisgerber's tactic. He merely cites sources which I might have consulted without revealing in any specific or detailed fashion how the literature which I overlooked might have substantially altered my line of argument, my conclusions, or my recommendation. If the literature base with which he claims familiarity is all that powerful and enlightening, why did he not use the occasion to cite chapters and verses which would have refuted or undermined my position? His charge may be cogent but he failed to demonstrate, except in one minor respect, exactly how and why.

The one instance where Weisgerber comes close to documenting how I might have reached a different conclusion appears in his comment on my statement in Chapter II about the absence of "a sufficiently precise and clear statement of desired staff behaviors (Set II) which can properly serve as the basis for the systematic and rigorous development of one (or more) staff training program(s) to serve Career Education as an educational reform movement."

For sake of argument, I am willing to concede that workers in the field have moved recognizable distances beyond my prior estimate of the availability of the specification of requisite staff behaviors. However, Weisgerber misses the salient point; namely, that "the creation of the sufficiently precise and clear statement(s) is a first order of business." It is only a first order of business; it is not the whole business. Thus, he fails to comment on the proposition which I advanced immediately after my observation of need for staff behavior specification.

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*The Far West Laboratory for Educational Research and Development arranged for access to the Georgia and Oregon materials. The Michigan "package" has not yet come to my attention.

> However, and this is crucial, it is hardly likely that creating the statements...separate from taking responsibility for building a specific training program will materially advance the current state of staff training. In short, a total development effort is required, not more statement generation in isolation.

I stand by that proposition, irrespective of any concession which I am willing to grant that research and development organizations, colleges and universities, state education agencies, and local education agencies -- acting alone or in concert -- may have generated the requisite specification(s) of staff behaviors for the development of powerful staff programs.

Do the exemplars which Weisgerber cites -- more specifically the Georgia and Oregon cases -- meet the test I would invoke for a total development effort? Let us take a look.

The Georgia work addressed itself to two primary and related questions. "What competencies do teachers need to infuse career development concepts into their regular classroom instruction? What does a college teacher who prepares teachers need to know about career education?" The effort which the Georgia group undertook, in 1975-76, was to develop a career education staff training package for teacher educators working at the pre-service level rather than persons working at the in-service level. The results of the effort appear, however, to be pertinent for in-service activity as well as pre-service preparation.

The staff training package, as made available to me, consists of the following pieces: (1) an Instructor's Study Guide, (2) seven packets of information and supporting materials, and (3) five volumes of background readings. By any reasonable standard, I consider the Georgia package a fine start on systematic and rigorous development. The group has constructed a useful matrix of desired teacher competencies and has elaborated on the connection between the desired pupil competencies (target behaviors), appropriate teacher competencies (affecting behaviors), and suggested preparation/training activities. The activities and approaches which "trainers" can reasonably employ and the materials which they can use are illustrated in connection with purposes to be achieved.

The Georgia package falls short of what I consider to be a complete effort because it does not yet include evidence of field test results in other sites than the home base and subsequent modification of content and method. There is available, however, a clear-cut and well-stated document on how evaluation of the package should and could proceed (See "Comments on Evaluation of Career Education Training Models"). The very first paragraph of the evaluation statement reveals that the Georgia group well understands the necessities and rigors of systematic development work.

> The question "Can the career education staff development model constructed in 1975-76 at the University of Georgia be implemented with additional staff?" needs to be studied before the transportability of the model to a national audience is advocated. An integral component of the transportable staff development model should be a field-validated evaluation procedure

> for assessing outcomes of utilizing this model. An evaluation technique that could successfully assess the outcomes of this type of training program would have implications far beyond the question of the transportability of this model and could be utilized with the assessment of various types of short conferences and in-service type training programs which have traditionally weak evaluation components. (Underscoring added.)

The Georgia group goes even further, however, and in doing so essentially offers an implicit recommendation which would be substituted for my own; "The appealing efficiency of such a training model needs to be documented by evaluating the achievement of the desired career education objectives." I would hope that Weisgerber, and the others who have criticized me for asking too much in my personal recommendation, take note of the urgings contained in one of the ememplars of literature cited as missed and overlooked by me.

Especially because the product I have seen represents the output of only one year's effort and because of its sensitivity to coupling rigorous development of staff training with evaluation of Career Education activities, I would rank the Georgia group high among those "firms" which might qualify for performing the work stipulated in my personal recommendation. The Oregon effort, as presented in the materials made available to me, has not matched the Georgia effort in producing a specific training package, primarily because the intent was clearly of a different order.

The work in Oregon was conducted by the Interinstitutional Consortium for Career Education, which was formed in 1971 and which comprises all of Oregon's public and private institutions of higher education engaged in the preparation of teachers, counselors, and administrators. "The endeavor is cooperatively sponsored by the Oregon Department of Education, the Oregon State System of Higher Education and the independent colleges and universities of Oregon. Staff is employed by the Marion Intermediate Education District (IED) to coordinate Consortium efforts and carry out Project activities." The materials made available to me include: (1) a descriptive brochure entitled "A Model for Career Education Personnel Development in Higher Education," (2) a "Summary of Project Accomplishments" on the effort to infuse career education into the preparation of teachers, counselors, and administrators, (3) "Final Performance Report," dated August, 1976, (4) a publication on "University Staff Development in Career Education," and (5) a publication on "Career Education Personnel Certification and Program Accreditation." The strategy and tactics adopted in Oregon come closer to the diverse and broad front approach advocated by Clark; Georgia adopted a product development orientation closer to the posture which I have advocated and recommended.

Analysis of the summary of project accomplishments suggests strongly that the Oregon intent was to affect the attitudes and orientations of cadres of faculty members in institutions of higher education to the end of insuring infusion of career education concepts and activities into the preparation of teachers, counselors, and administrators. Very obviously, a significant number of faculty members (the number of 350 is cited in the report) at fourteen institutions were involved in a wide variety of activities, including award of small grants to assist given institutions and faculty members to incorporate career education dimensions into specific courses and programs at the various institutions. There is evidence that the Consortium effort includes attention to specification of pupil and teacher competencies for inclusion in revised courses, to try out a number of revised courses, and to subsequent revision of some courses.

I will note without comment the additional effort directed to investigation of the issue of whether and how to revise state accreditation requirements to guarantee insertion of Career Education requirements in all professional preparation programs.

I do not consider the Oregon effort to represent, in contrast with the Georgia effort, an R & D activity directed to staff training for Career Education. Certainly, it is directed to staff training, as offered by colleges and universities; but, in my judgment it is properly classified as a diffusion and legitimation effort undertaken by a number of parties who have agreed that Career Education is right for Oregon. Given the policy decision apparently reached in Oregon, the strategy and tactics adopted by the Interinstitutional Consortium sponsors and executives make eminently good sense. It is doubtful, however, that first-rate staff training programs of the quality which could come from Georgia will appear in Oregon as long as the orientation described in the materials available to me dominates the scene in the latter state.

What is appropriate to say about the central theme of Weisgerber's critique after review of two sets of literature identified by him as germane? The issue is, as I see it, not whether I could have consulted more literature and examined more cases of the variety represented by the Georgia and Oregon materials, but what difference a deeper and broader search would have made in my line of argument, in my conclusion about the state of the art, and in my recommendation. The sole difference which I can see is that I would have found more evidence of sufficiently precisely stated affecting and target behaviors, stipulated by me as the necessary starting point of rigorous and systematic total development efforts.

I am willing to concede that particular point. I am not, however, willing to concede that the full array of lists of desired competencies which may lie about the landscape have yet been reduced to sets which are ready to serve well total development efforts. I see in the Georgia instance a sound example of such a reduction. The Georgia group has moved as I would like to see R & D for staff training in behalf of Career Education move. Its work qualifies it as a firm eligible for and deserving of further investment. In the Oregon case, I see the potential foundation for a future development effort, but only if the strategy and tactics are redirected toward development work per se rather than diffusion.

In sum, I conclude my response to the charge of inadequate consideration of available literature with concession on the point of availability of desired affecting and target behaviors and with confidence that fuller consultation of the literature would have offered me more, not less, evidence of support for the need to insure investments in highly selective and concentrated total development work. The Georgia group has also provided solace to me in respect to my recommendation for coupling rigorous product development with evaluation of the effects of Career Education per se.

Conceptions of R & D

The sharpest, and most cogent, attack on the thrust of my paper appears in Clark's critique. His criticism runs in two parallel and contiguous streams: first, that my definition of R & D is narrow and particularized; second, that my recommendation for R & D strategies for staff training is overly restricted and restrictive. He attributes the latter in part to the former and in part to a "doubting Thomas" attitude toward Career Education. He offers an alternative recommendation which starts with a call for unequivocal abandonment of my view of R & D.

Clark advocates a broader approach incorporating a diverse set of tactics as opposed to an imputed narrow tactical choice on my part; he prefers the initiation of work on a wide front rather than in a few concentrated locations. More specifically, Clark opts for an R & D strategy which would set in place a grant and contract program to provide support for (1) documentation and evaluation of existing training programs and materials; (2) development of training materials and programs; (3) stimulation of the mutual interests of development personnel and practitioners in diverse settings; (4) activities designed to bridge diverse positions and distinctions between pre- and in-service preparation; (5) some coordination -- perhaps.

If diversity and breadth are descriptors which Clark wishes to use to characterize his view of R & D pertinent to staff training, I readily admit to favoring a "narrow and particularized" view. The product development orientation which dominates my paper appears there precisely because I firmly and unequivocally believe in its particular strength and unique power as a modality for the development of training programs which promise to make a difference. I base my belief on extensive opportunity to observe directly differences in results between product development and primarily process development efforts during the early years of the Educational Laboratory and R & D Center programs, some acquaintance with more recent efforts of the surviving Laboratories and Centers and development firms, and my own personal experience with the Instructional Supervision Training Program.

If something more than training per se is desired -- and I believe Clark as well as several other critiquers so desire -- such as more generalized support for a diverse set of educational institutions through the route of R & D strategy other than the one proposed by me can and should be carefully considered. If the central policy question is how to enhance training qua training, then I will stick to my position that a product development orientation should clearly prevail.

In more than just a few respects, the differences between the Georgia and Oregon cases illustrate some of the primary points of divergence between

Clark's conception of preferred R & D strategies and my own. I urge investments in efforts of the character undertaken and documented by the Georgia group at the exclusion, in this point in time, of investments in efforts of the Oregon variety. I do not doubt for a moment that there are now more college and university professors in Oregon than in Georgia who have become acquainted with Career Education and who have made efforts to "infuse" Career Education into preparation curriculums. But I also predict that there does not now exist in Oregon as well developed a training program with as high multiplier and transportability potential as exists in Georgia. I am in favor of placing R & D bets on the latter type of activity rather than on other alternatives, which can reasonably and sensibly be supported by "operating" as contrasted with "R & D" monies.

I have opted and continue to opt for a narrower and more parsimonious approach, with a high degree of focus on program development in the form of tested products. Clark agrees that there should be support for the development of training materials and programs, but he urges that provision also be made for supporting other, presumably related activities. I disagree that my approach loses entirely the option of attending to these other activities because each and all of them could well be attended, in course, by the firms which might receive funding to carry on, primarily, the rigorous development work I advocate. Clark has simply not persuaded me that his "diverse and broad front" approach will deliver more and better training programs than my "narrow and particularized" approach. He has persuaded me that throughout I have maintained my focus on the development of first-rate training programs while he and some of the other critiquers have sought to serve additional and/or other interests and masters.

Clark takes me to task also on avoidance of the diffusion issue. First, he says that my view of R & D is too narrow to make adequate provision therefore; second, he wonders whether my "doubting Thomas" attitude contributed to my shying away from the diffusion objective of a full R & D program. I see the difference between us on this score as centering on my primary concern for the development of a relatively small set of well-tested training programs vis a vis his concern for the adoption and spread of higher quality training efforts in Career Education than now appears to be the mode. I will not argue the point that diffusion is important. I understand the difference between development (as used in R & D) and diffusion (as used in R-D & D). I recognize that diffusion is a crucial matter in bringing the benefits and products of a good development work to ever larger circles of users. However, I also believe that diffusion is an empty and hollow activity unless there is something worthwhile to diffuse. It is my conviction that staff training in the interests of Career Education at this point in time is less in need of diffusion and more in need of well-developed and well-tested training programs and materials. On these grounds, I opt for a strategy which attends to the greater present need rather than a need which will clearly require careful attention after rigorous development work has generated high quality products. My estimate of the proportion of total Career Education funds which has gone to legitimate R & D work vis a vis the proportion which has gone to propagation and diffusion of operating programs coupled with my estimate of the impact of previous and current funding on the state of training have prompted me to eschew a broad front approach in favor of a "narrow and particularized" approach, which also makes provision for evaluation of the effects of massive operating investments.

I see in Clark's posture on diffusion more than a recommendation for a full R & D program. I sense on his part more than just a modest interest in seeking to capitalize on the total level of support for Career Education in behalf of a large variety of beneficiaries, including more schools of education, who -- irrespective of development capability -- can help the spread and hopefully the quality of the movement while also helping themselves. I did not and do not give serious thought to the spreading around of whatever R & D dollars may become available for staff training because I am convinced that more "bang" for R & D "bucks" will result from investments only in "firms" with demonstrated or high potential development capability. Clearly, Clark and I are on opposite sides of the fence on how best to view R & D for staff training in behalf of Career Education. His line of argument has not persuaded me to cross over to his side.

Clark's treatment of my position on R & D vis a vis his own encompasses his commentary on the four alternatives or models which I offered as potential routes for investing in the development of training programs. He compliments the rubric itself, but he is severly critical of my "pessimistic" and "unnecessarily negative" assessment of each alternative. He urges (like Weisgerber and Withey) that the models be seen as complementary rather than mutually exclusive or competitive; indeed, that investments in each and all are potentially worthy. He attributes my pessimistic treatment to my narrow and particularized view of R & D; like O'Keefe, my negative assessments, to my "doubting Thomas" attitude about the value of Career Education. He also suggests that the negative tone and substance of the assessments may have been a consequence of my Personal Recommendation.

I agree that the weight of argument and analysis in examining each alternative as a potential route for R & D investments exposes problematical features. I also agree that R & D firms which may be funded for the development of staff training programs will need to consider complementarity vs. exclusivity in deciding on choice of model. However, my treatment of each alternative considered advantages and favorable possibitities as well as disadvantages and potential disabilities. Thus, I do not agree that my assessments of the alternative routes were either pessimistic or unnecessarily negative. I consider them, instead, necessarily realistic with the exception of some exaggeration and caricature in the site-specific case (which O'Keefe, Weisgerber, and Withey have also caught). In that particular instance, however, I would urge the critics to reexamine the history and effects of ESEA Title III before they become too hopeful about spill-over effects in contiguous locations.

While I reject Clark's estimate of my analysis of the alternatives, I concur that my narrower and more particularized view of R & D vis a vis his own did influence my treatment of the four routes. I was primarily and centrally concerned with the rigorous development of staff training programs. His agenda is different. The differences in our respective agendas, as I have suggested above, accounts for our differences in viewing my treatment of the alternatives. The policy question is not whether he is correct in assessing my view as narrow and particularized. Rather it is whether or not a narrower view makes more sense than a broader view in coping with the central issue of staff training.

On the postulated connection between my treatment of the alternatives and my "Doubting Thomas" attitude about the value of Career Education (a refrain in which O'Keefe joins vigorously and loudly) I must enter a strong demurrer. Clearly, there are places in the consideration of each alternative where one or more features of Career Education has affected the analysis. It was my estimate of the specific feature involved rather than my estimate of the worth of Career Education in toto which influenced my treatments. My considered judgment is that my way with the four alternatives contains relevance for R & D policy decisions on staff training which transcend any one educational innovation and, therefore, should be examined in that context rather than only for its pertinence to Career Education at this moment in time.

I must also take strong exception to Clark's implication that my personal recommendation may have been formulated prior to my analysis of the four alternatives and may, therefore, have guided or affected my treatment. Let me put the record straight on that score! I did not formulate my Personal Recommendation until well after I completed all other parts of the paper. To play on O'Keefe's words, my analysis informed my recommendation, not vice versa.

I will conclude my response to Clark's critique of my view of R & D with one final comment. He invokes the notion that I employed a reconstructed logic in describing the development of the Instructional Supervisor Training Program. Not so! I did not describe what took place from an ex post vantage point and I did not fabricate a reconstructed description which meets an idealized version of development work. I described exactly what took place in the sequence which actually occurred. I did so only and exclusively because I am convinced that if such a logic is employed from the start, strong and productive training programs can and will be developed. Career Education will need such training programs to realize the hopes of its protagonists. If that be a narrow and particularized view of R & D, so be it!

Views of other critiquers on proposed R & D strategy. I have concentrated my response to this point on Clark because he addressed himself at more length and in more detail than the other critiquers to an alternative view of R & D and to an alternative proposal for R & D investments. I will now briefly examine and respond to the other statements, grouped into two sets: those which expresses agreement with my personal recommendation; those which express explicit or implicit disagreement. The first includes Caruso, Crawford, and Leeke; the second includes O'Keefe, Weisgerber and Withey. All members of the second set show themselves as Career Educationists; toward Career Education Caruso shows herself as negatively inclined, Crawford positively inclined, Leeke takes no strong position.

Each of the three who express support for my personal recommendation has, however, added some dimension of qualification which reveals a particular tilt toward preferred R & D investments. Caruso's expressed support for my recommendation appears to derive from her concern about Federal sponsorship for Career Education per se rather than the stipulated R & D strategy. As she puts it, "It is time to assess the claims of the movement." When she restates my recommendation, she places the evaluation dimension before the systematic development effort. With specific reference to R & D strategy, she uses the ISTP illustration as a point of departure to support the thesis that rigorous, careful, and expensive development work can be capitalized only if sufficient implementation and engineering money is made available to local educational agencies to adopt and adapt the products which may result. The burden of her critique is, however, less one of urging modification of my recommendation and more one of urging substantially increased Federal attention to the general staff training problems of urban school districts, especially the great cities. She clearly prefers a Federal strategy which would make large amounts of funding available to local education agencies (particularly in large urban centers) to support staff training for purposes of their own choosing. Within the domain of staff training, then, she urges a general rather than a categorical aid approach. In sum, she says that if you are going to invest in R & D for staff training in behalf of Career Education, do it as Boyan recommends, but it would be preferable to invest heavily in staff training for purposes defined by the local educational agencies who can turn to educational development firms of their own choice for suitable materials and training activities.

Crawford's position appears in the last sentence of her statement: "In addition to his (Boyan's) recommendation, I would like to see pre-service programs included in the process and also some funds set aside to help the already existing local and independent projects." I find no reason to quarrel with her request to include attention to the pre-service level, as attested by my previous endorsement of the work of the Georgia group which has focused on pre-service teacher educators. Products like those prepared at Georgia offer promise of serving both pre-service and in-service training requirements. I do, however, find reason to be uneasy about setting R & D funds aside to help local and independent projects unless they serve as test sites for development work conducted by firms which possess capability for such work. Clark would attribute my position on this score to my "narrow and particularized" view of R & D for staff training; he would be exactly correct.

Leeke has also recorded himself to be in agreement with my personal recommendation and suggested approach. At the same time he urges consideration for employing R & D to generate the sufficiently precise statements of desired staff behaviors needed for the development of staff training programs and a more accepting view toward the use of R & D for encouraging the spread of Career Education through convincing the non-believers. He joins Caruso and Crawford in urging that significantly more operating funds be made available for training activities at the local level. On the business of generating statements of desired affecting behaviors I have already indicated some relaxation of my originally stated position about the lack of availability of same, but I will repeat my belief that the generation of statements of desired training behaviors best takes place within the context of a total development effort rather than in isolation. On the appropriateness of employing scarce R and D funds to convert non-believers, I must demur. Let that purpose be pursued with other funds as appropriate to a complementary, but secondary, diffusion strategy rather than a strategy for developing powerful training programs; similarly with providing funds for training activities on the local level. My reading of announcements of funding to state and local education agencies to engage in

Career Education convinces me that there is already a significant disproportion in funds available to train people and in funds available to develop worthwhile training programs. It is to the latter purpose that I urge R & D, as compared to operating, investments.

I will now turn to the critiques of O'Keefe, Weisgerber, and Withey which collectively come at the analysis of my position less from the issue of R & D strategies for staff training and more from the vantage point of defenders of the faith. Accordingly, I will treat them in the next section, addressed to examination of the influence of my estimate of the worth of Career Education on my line of argument and my recommendation.

The Issue of Bias

O'Keefe, Weisgerber, and Withey attack my paper as protagonist of Career Education engaged in a duel with a perceived antagonist. They approach the clash from somewhat different perspectives, but share in common an ostensible rejection of the "unbeliever's" recommendation.

O'Keefe employs the propositions that my attitude informed my analysis of the various investment routes and that my bias led me in seriatim to reject each of the several alternatives. She leaves no uncertainty that a believer would have considered each of the possibilities more positively. Her view that my attitude informed my analysis parallels Clark's concern about my "doubting Thomas" orientation; unlike Clark, she makes no real effort to offer an alternative recommendation.

Whatever reasons may have influenced O'Keefe's response and guided her critique, her view of the worth of Career Education clearly affected her treatment of my analysis and proposal. I judge that the singular consideration for her and the primary criterion she employed was how kindly my recommendations treated Career Education -- which is, of course, completely irrelevant. Only a dedicated advocate would have offered in support of a pronouncement that "Dr. Boyan's attitude informs his analysis" the argument that I converted the problem of staff development into a problem of the validity and evaluation of Career Education. True, my recommendation conjoins development and assessment. Conjunction of two activities is, however, far from transformation of one into the other. In this connection, the reference to self-impalement on a double-edged sword is curious. If O'Keefe was referring to the problem of staff development as one edge and the problem of the validity of Career Education as the other edge, I am comforted to note that she sees them as part of the same blade. If, indeed, she does see the two edges as so related, the question of whom the blade has impaled becomes more problematical than she suggests.

O'Keefe's sensitivity about Career Education appears also in her commentary on my treatment of the need issue. Her judgment about the postulated relationship of perceived need for staff training to aspiration held for Career Education, demonstrates that she examined the proposition from only a narrow perspective rather than from the standpoint of a student of training needs.

Her concern for the particular has blocked her view of the general. The same sort of concern shows again in her discussion of the 20 per cent - 100 per cent levels. I hardly "forced" anyone to admit that 20 per cent involvement of the nation's school people in any reform movement was unusually high or eminently satisfactory; nor did I offer 100 per cent involvement as the only alternative. I did note that 20 per cent involvement would be considered a favorable level for many educational reforms; and I did note that some advocates of Career Education -- as witnessed by O'Keefe herself -- appear to desire 100 per cent involvement. The section on need is one of several where O'Keefe comes close to serious misrepresentation. A second is where she imputes to me the position that because R & D for staff training might be very costly, I recommended that no effort should be made. In her attack on my analysis of the four alternative investment routes, O'Keefe attributes to my personal estimate of the worth of Career Education my transformation of clear and apparent advantages into liabilities. She was unable, as were other strong advocates of Career Education, to see the general rather than only the particular dimensions in my analysis. In each instance, her comments reveal undue sensitivity to a real or presumed criticism of Career Education rather than primary concern for the central issues of R & D strategy. Her defensiveness appears in its full form in the language she uses about my cornering "that sly, elusive phenomenon of Career Education" and to my requiring Career Education "to prove its claims, perform, pass the test." The first, to O'Keefe, is obviously silly; the second, patently unnecessary.

She represents her wants from R & D as simple enough: verification of the goals of what is already under way and creation of workable training programs. Her descriptions for some Career Education practices (haphazard, bizarre, unsound) reveal her concern, which she obviously hopes R & D can serve to ameliorate. She is, however, not happy with my approach, to which she applies the coup de grace by way of a blatant ad hominem blow. Not only am I bad because I have made it clear that I am not a great friend of Career Education; I am also unworthy of attention because I don't deal with the messiness of the real world. However logical, intelligent, precise, and informative, I am an obstructionist. Would that O'Keefe had addressed herself more precisely and with intent to enlighten the central issue of R & D strategies for staff training than to attacking my credibility and motives. To the former, she has added little of use to policy makers; to the latter, I suspect she has done little damage.

Like O'Keefe, but only more so, Withey attempts to demonstrate that my attitude toward Career Education biased my fulfillment of the commission. In the body of his critique, which is really not a critique at all, but rather an apologia for Career Education per se, Withey specifically faults me for flavoring my paper with (1) personal beliefs, (2) lack of support for Career Education, and (3) defense of lack of acceptance (or participation) by institutions of higher education. He also faults me for offering no constructive suggestions for closing the gap between schooling and the world at work, which demonstrates that I never did make clear to him the nature of my commission. In his Appendix A, Withey draws 33 citations from my paper to support his charge of "unfortunateness." No less than 20 of the citations refer in some fashion to imputed lack of support for Career Education; four, to the higher education instance; the balance I was unable to classify readily.

I have read and reread the citations in the hope of making conceptual or psychological sense of the underscoring which Withey has added to the original text. I have been unsuccessful. I can only conclude that he found in the words and phrases so indentified convincing evidence that I was indeed not an advocate of Career Education and equally convincing evidence of my bias. My disappointment in Withey's substitution of a list of 33 citations for careful and thoughtful analysis of issues is matched only by my estimate of the value of his contribution to the debate and deliberation on R & D for staff training in behalf of Career Education.

My disappointment with the Specific Reaction section was just as great. The insertion of the newspaper quotation was impertinent; the criticism of the AIR sampling procedure was obviously uninformed. The remaining comments in the section constitute a miscellany of unrelated statements which collectively add little of value to the dialogue on R & D strategies. I also found that Withey appeared to have difficulty placing other people's words in context and understanding their content. For example, he asks why I appear to be "hung up" on a single training program. If he had read carefully what I said, he could have recognized that I never did suggest there should be a single program. I did say that the 105 goal statements prepared by the Ohio State group could not be used, as they stood, for the development of even one training program. I found no contradiction between the sentence to which he refers and my recommendation. Withey's reading of my footnote about "firms" is faulty; apparently, he did not understand that my reference to "other body capable of doing the job" includes colleges and state departments of education. Altogether, Withey's specific reactions are no more helpful or enlightening than his initial reactions.

His commentary may provide some solace to the "Amen corner" of Career Educationists, but his critique offers no real enlightenment on the central issue of preferred R & D investment strategies.

I have already addressed myself to Weisgerber's criticism of my coverage of the relevant literature base. I repeat here that he depreciated his argument by omitting citation or illustration of how the literature I missed would have materially advanced the dialogue about R & D strategies. I have reviewed and already commented on the Georgia and Oregon staff training efforts which he cites as exemplars, particularly with respect to softening my view on the availability of clearly specified affecting or target behaviors. That softening, however, has not caused me to change my position that the wisest and best way to proceed is to invest in "firms" which have exhibited demonstrated capacity to conduct rigorous development work. Let me turn now to examination of and response to other dimensions of Weisgerber's critique.

His comparison (in comments on my Chapter III) of the ISTP package with those developed at Ohio State, Georgia, and Michigan reveals confusion about the differences between "hands-on" and "hands-off" products. Also, my information about the Ohio State materials and my analysis of the Georgia materials confirmed that neither had yet been submitted to the extent and variety of field testing employed in the development of the ISTP.

On the substantive characteristics of Career Education (Chapter IV), Weisgerber faults me for not understanding fully that Career Education does, indeed, encompass methodological change. Mea culpa! Clearly, Career Education is even more complex and far reaching than I previously understood. However, he does not examine the consequence of my misunderstanding; namely, that the development of training programs for Career Education becomes an even more complex and challenging task.

Weisgerber argues that I am misinformed when I report that Career Education sets the workplace as the central stage for all learning. He and Withey represent Career Education as much broader, and more inclusive. If they speak with authority, then Career Education must be seen as an even more thorough going reform of education than I have posited. If this is indeed so, then once again staff training for Career Education assumes even more gigantic proportions than I had originally anticipated.

We see, then, that I have erred on the conservative side in estimating the complexity and scope of Career Education as an educational reform movement. As critiquers, Weisgerber and Withey properly criticize my misperception but they do not fully appreciate and understand the implications of their criticism for consideration of R & D strategies for staff training.

Weisgerber's comments on my view of the differential value of staff training for unbelievers and believers reveals his deep concern about my valuation of Career Education as compared to his understanding of training programs, processes, and objectives. First, he rejects my position -- with no counter argument or studied reasoning -- then, he argues that my choice of terms (unbeliever and believer) reveals a strong bias against Career Education, which in turn seriously questions my objectivity. Weisgerber's sensitivity to my posture on Career Education has blinded him (like O'Keefe) to the reality that use of the terms believer and unbeliever in a staff training context transcend application to any one educational reform movement.

Weisgerber also reveals that he missed the entire point of my recommendation that evaluation of Career Education per se move hand in hand with rigorous development of staff training programs and materials. I will not deny that my personal recommendation incorporated the evaluation dimension because of my own uneasiness about the merits of Career Education as an educational reform. However, I can say without equivocation that when it comes to considering an R & D strategy for staff training for any movement which is so encompassing, sweeping, and heroically funded, I would incorporate the very same recommendation. Like the other Career Educationists, Weisgerber has missed a central feature of my recommendation; namely, that the chances of good evaluation results for any major enterprise are materially enhanced when the staff involved receives systematic and powerful training. It is perfectly correct to view my recommendation as parsimonious and cautious. However, Weisgerber and his colleagues should also see that my recommendation offers valuable protection for Career Education rather than the obstruction which they, particularly O'Keefe, have inferred.

Finally, on Weisgerber, let me observe that the final sentence in his penultimate paragraph and the last paragraph together constitute a restatement of my own recommendation. The only real difference is that where I used a more generalized reference to firms with the requisite capability, he localizes the activity to several sites where Career Education staff development has taken place. I would not argue the point, as long as real R & D capability for developing training programs is either demonstrated or assessed as highly potential.

I will conclude my response to O'Keefe, Withey, and Weisgerber with the observation that suggestions and proposals for serious evaluation of Career Education appear to some of its advocates as anathema and outside the pale of acceptability. They rise to the situation by asking for equal treatment of other educational practices or they attack the credibility, motives, and reason of the proposer. Of such zeal do zealots come.

In Retrospect and Prospect

Aside from perspectives on the worth of Career Education and argument over the influence of real or imagined bias on recommendations, of what value to R & D decision makers are my position paper and the several critiques? I estimate that the colloquy has offered choice between a more parsimonious and cautious approach (my own) and a more expansive, bold approach (Clark's). The argument for the former derives primarily from a strong belief in a product development mode as singularly appropriate for making available an alternative set of fully tested training programs prior to investing R & D funds in diffusion. The argument for the latter derives substantially from a preference for coupling from the onset attention to diffusion and development work, with investments in a wide variety of institutional settings irrespective of development capability. The choices exposed by the position paper and the critiques, especially Clark's, are real and should not be taken lightly.

Meanwhile, the funding for Career Education pours forth in the form of monies for operating activities and stimulation. There is no evidence that operating funds will diminish while R & D policy makers explore the wisest and best alternatives for investing in strategies to insure improvement in training. The policy makers must act, and now. I can only repeat my urging that as they make their choices, they help the cause of education broadly as well as Career Education specifically by investing in the evaluation of the latter as well as investing in staff training per se.

Appendix A

STATEMENT OF WORK FOR PROJECT ON CAREER EDUCATION STAFF DEVELOPMENT

Prepared by
National Institute of Education

Problem

The American Association of Colleges for Teacher Education has conducted a survey of career education staff development to provide an up-to-date picture of what is happening nationally to train staff. This picture will be used to fulfill part of the Congressionally mandated obligation of the National Council on Career Education to report to Congress on the status of career education and to recommend alternative Federal actions to achieve Congressional intent regarding career education.

The Council's responsibility includes all Division of Education programs related to career education: those of the Fund for the Improvement of Post-Secondary Education, those of the U.S. Office of Education, and those of the National Institute of Education. There is a need to supplement the AACTE survey in order to fulfill the Council's responsibility to consider career education staff development from the point of view of research and development as well as from the point of view of the Office of Education. The tasks listed below will contribute to fulfilling this need.

Approach

The product will be a report on R&D needs and priorities for in-service staff development for career education. The product would be responsive to the attached problem statement (Attachment A). The product, while intended primarily for NIE use, should be suitable for public distribution; the format will follow the model of Merrow et al.'s report on Competency Based Teacher Education.

Tasks

1. Far West Laboratory will obtain the services of a commissioned paper writer and at least seven commentators.
    - The commissioned paper writer should be someone of high professional calibre and credibility.
    - The seven commentators should include:
        - a dean of a school of education already active in career education

- a chief state school officer from a state very active in career education
- a private organization already providing in-service career education training
- a superintendent of schools from a city active in career education
- a teacher with substantial experience in implementing career education from the same school district
- an active state director of career education
- a president of a teachers' association or union

2. The main writer will be responsible for using AACTE and AIR data plus other sources to be suggested by NIE, plus a few site visits to nearby colleges and LEAs to observe quality of in-service training, to:

   - prepare the draft paper
   - present the paper at a small invitational conference of commentators and of (unpaid) selected observers from OE and NIE and other organizations
   - revise the paper
   - lead a discussion of R&D issues in career education training at a session of an appropriate conference

3. The commentators would receive the AACTE and AIR data at the same time as the main writer. They will be responsible for preparing draft comments, participating in the invitational conference, and preparing final written comments on the revised paper.

4. FWL would be responsible for arranging for the conference (to be held off-site), for distribution of the draft report. and for editing and preparing camera-ready copy of the final report, which is to include the main paper and the seven commentaries.

5. If possible, FWL would arrange for a national conference session at which the major writer would discuss the paper.

Attachment A

In-service training for career education has been regarded as a cornerstone for career education effectiveness. It has also been stated that not enough is now being done to provide such training. It isn't clear, however, whether the supply of training is adequate to meet the demand, but the demand must be aroused more strongly, or if the supply of training is falling short of demand -- and if so, why: lack of materials? of trained instructors? other problems? Finally, it has been stated that R&D is needed to support in-service training. It is uncertain what would be most appropriate for a Federal R&D agency to support as highest priority, given limited R&D funds. In addition, policy issues such as the coordination of competency-based teacher education R&D and new R&D in career education staff development have not been explored.

Three phases of the R&D planning study are envisioned:

- The first phase would bring together existing data on what is already happening in in-service training for career education, its quantity, and, insofar as possible, its quality. The result of this phase should be a better definition of the problem, if any.
- The second phase is to analyze the reasons for the problem(s), if any, in in-service staff development for career education, and suggest alternative solutions. The result of this phase should be a statement of alternative strategies -- which may or may not include R&D -- with the advantages and disadvantages of each, their approximate costs, and what would be required to implement them.
- The third phase is to synthesize these findings in terms of implications for Federally supported R&D. If further R&D is needed -- and it may not be -- what alternative roles should a Federal R&D agency, specifically NIE, play in improving the quality and/or quantity of in-service training for career education? How might different groups (e.g., Deans of Schools of Education, Chief State School Officers, teachers' unions) see these priorities?

This is the minimum scope of work. The paper writer may wish to include pre-service as well as in-service training; if this can be done without additional funds, the Institute would welcome expansion of the discussion. Also, while the focus may be on elementary and secondary education, if available data permit, the paper writer may wish to expand the analysis to community colleges, proprietary schools, and higher education. If this can be done without additional funds, the Institute would welcome this expansion of the analysis.